X-FAB
MIXED-SIGNAL FOUNDRY EXPERTS

MORE THAN MAKING CHIPS

ANNUAL REPORT 2018

X-FAB Silicon Foundries SE

CONTENTS

DEAR STAKEHOLDERS,

In 2018, we successfully continued to develop our core business and to expand capacities as well as capabilities in line with market demand, laying the foundation for future growth. Revenues in our key end markets – automotive, industrial, and medical – came in at USD 404.3 million, which is an increase of 15% compared to 2017. The industrial business was particularly strong with growth of 27%. Overall, the automotive business recorded an increase of 11%, despite a dip in the fourth quarter, and the medical business was up by 6%.

Our prototyping revenues as an indicator for future business came in at USD 58.6 million, recording an annual growth of 8% year on year. Each prototype stands for a new contract, adding up to the pipeline of projects driving the future growth of X-FAB. By market segment, automotive prototyping revenues increased by 2% and industrial by 41%, whereas medical decreased by 18% year on year. Medical prototyping revenues are usually subject to fluctuations and also depend on the achievement of project milestones.

Our comprehensive technology portfolio allows us to address today's megatrends in the key end markets we serve, such as the electrification of vehicles and autonomous driving in the automotive market, green energy and industry 4.0 in the industrial segment, as well as personal healthcare and lab-on-chip in medical.

The automotive business accounts for about half of X-FAB's total revenues. We have been committed to serving the automotive market since the founding of the Company and have increased the number of automotive customers from fewer than ten back in 2005 to 60 in 2018. To underline this commitment, in 2018 X-FAB was the first semiconductor foundry to be certified according to the new IATF-16949:2016 International Automotive Quality Management System, acknowledging the highest standard of system and process quality for automotive suppliers. In 2018, automotive production revenues went up by 11% over the previous year.

We recorded strong growth in the industrial segment, with production volumes increasing by 26% in 2018. In terms of prototyping revenues, the industrial business had the largest share accounting for 43%. However, the production series in the industrial market are smaller and will therefore remain smaller than in automotive.

I am particularly excited about the medical business, which we believe will be an important growth driver for X-FAB. In 2018, medical production revenues recorded an increase of 20%. Currently, the higher share of our medical business goes into medical equipment, such as X-ray or ultrasound machines; however, with the rise of lab-on-chip applications this will change over time. Once fully adopted as approved diagnostic tools, disposable lab-on-chip devices, such as for cell sorting or DNA sequencing, will help us to considerably grow our medical revenues, and we are proud to count market leaders in this field among our customers.

In 2018, the silicon carbide (SiC) business as another future growth driver has progressed well. X-FAB has become a recognized leader in the 150mm pure-play foundry market. Annual SiC revenues came in at USD 11.3 million compared to USD 4.5 million in the previous year. We successfully expanded our customer base to a total of 15, and we do have a pipeline of potential new customers from all over the world. The SiC wafers mainly go into the automotive and industrial market for applications such as photovoltaic inverters, as well as hybrid and electric vehicle charging stations. We furthermore introduced a new high-voltage galvanic isolation technology that electrically separates two circuits. This technology also supports the electrification of cars and a variety of industrial applications. It is part of our move to offer technologies required in power systems, complementing our silicon carbide offering.

In 2018, our MEMS business recorded an annual growth of 6% year on year. X-FAB ranks among the top five of the world's leading MEMS foundry suppliers, and we have successfully expanded our MEMS capabilities and customer base in 2018 to further strengthen this position. With the introduction of noble metal on CMOS capabilities, we can address exciting applications for the automotive and medical market, an example being the extension of our open platform pressure sensors for automotive applications in harsh environments. We also kicked off a development project for a next-generation DNA sequencing device, started mass production of a high-volume microfluidic product, and manufactured MEMS microphones to go into a flagship smartphone.

I often get asked why customers come to X-FAB and what makes us stand out, and I believe it is basically two things: first, it is our unique technology offering, tailored to the needs of our customers in X-FAB's core markets, and second, it is the design support we provide to our customers, making it easy for them to start working with us and to achieve first-time-right designs for technically complex products to serve highly demanding end markets.

In 2018, we continued our efforts to expand and optimize our manufacturing sites, aiming to increase output and productivity. Part of this is a productivity improvement project we kicked off in 2018. External experts conducted a detailed study including objective assessments based on reliable industry benchmarks. The many small resulting improvements add up to a sizeable overall significant potential and will be adopted by each production site as part of an improvement project that will run over the next two years, leading to gradual improvements.

The implementation of X-FAB technologies at X-FAB France advanced well. We increased prototyping based on X-FAB technologies and plan to start the first automotive production wafers in the second quarter of 2019.
At X-FAB Texas, we doubled our SiC capacity through investing into a second heated ion implanter and kicked off a project to install SiC epitaxy capability. The latter will allow us to add an additional service for our customers and to respond more dynamically to changing requirements in the market. As we expect to significantly grow the SiC revenues in 2019, a further capacity increase is underway. Production ramp-up of an additional implanter is planned to start in the third quarter of 2019.
In early 2018, our site in Kuching completed an expansion project, increasing capacity from 24,000 wafer starts per month to 28,000 wafer starts per month. Based on the ongoing productivity improvement project and some de-bottleneck investments, X-FAB Sarawak is scheduled to increase capacity from 28,000 wafer starts per month today to 30,000 wafer starts per month by the end of 2019.
X-FAB Dresden also started to work on expanding its capacity from 8,000 wafer starts per month up to more than 11,000 wafer starts per month. As a first step, capacity is scheduled to increase to 9,000 wafer starts per month by the end of the second quarter of 2019.

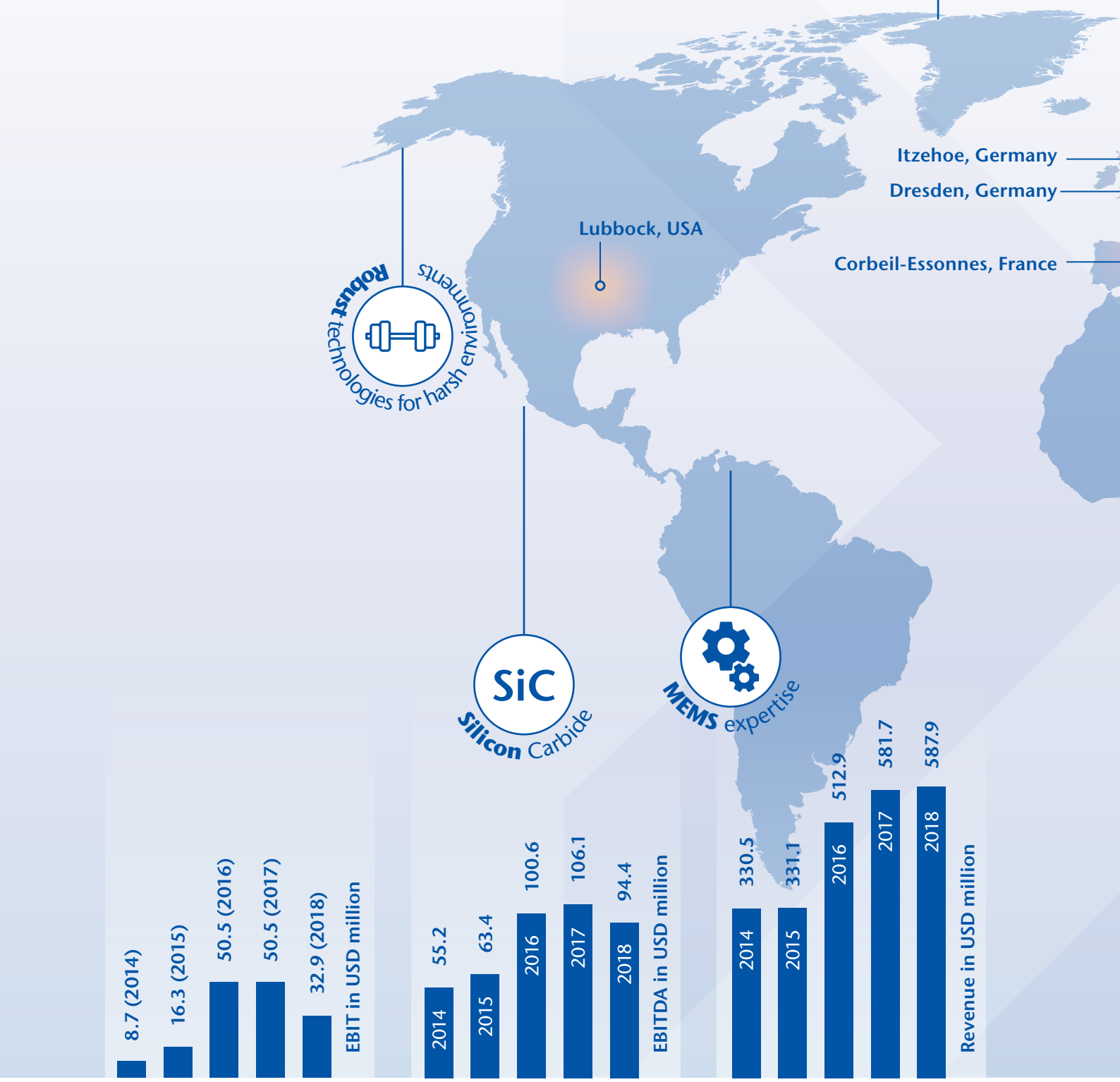
X-FAB's revenues in 2018 came in at USD 587.9 million, an increase of 1% year on year. The lower overall growth was driven by several factors, such as a 19% decline of consumer business due to the complete exit of the outsourced fingerprint business and the planned reduction of the legacy business in France. In addition, the automotive business experienced a significant drop starting in the fourth quarter due to inventory corrections in the semiconductor supply chain. These were caused by slower car sales and market uncertainties, mainly due to worldwide trade tensions. We still see reduced sales in the first quarter of 2019 and have started a cost-saving program to limit the impact of the current revenue contraction. At the same time, we are preparing ourselves for the quick upswing that typically follows an inventory correction and are confident to return to solid overall growth in the second half of 2019.

After the close of 2018, there have been no major events that require disclosure. I would like to conclude by thanking all X-FAB employees for their great efforts and commitment throughout 2018, and our customers, investors, and business partners for the trust they have placed in us.

Rudi De Winter
CEO

X-FAB AT A GLANCE

Specialty foundry for analog/mixed-signal technologies with strategic focus on automotive, industrial, and medical markets




Euronext listed since
APRIL 6
2017
Manufacturing facilities
6
Employees representing 45 nationalities
4000
Erfurt, Germany
Kuching, Malaysia
Modular CMOS process families
Eight inch wafer starts per month
98
thousand
Best-in-class support
Proven automotive quality system
X-FAB
MIXED-SIGNAL FOUNDRY EXPERTS

3. OUR CULTURE

Diversity at X-FAB
Since its inception in 1992, X-FAB has grown to become a global company with a strong presence in Europe, North America, and Asia with approximately 4,000 employees spread all over the globe. At X-FAB, you will find an international and diverse working environment. Our employees represent 45 nationalities and have varied cultural backgrounds. This makes working at X-FAB an inspiring experience – across borders and cultures. Nonetheless, we are well aware that our customers expect excellent products and services independent from nationalities and locations. It is therefore essential to enable our employees – no matter where they are located or come from – to collaborate successfully.

OUR VISION
To be the foundry of choice for the analog world

OUR MISSION
We are fully engaged to be the foundry of choice for the analog world by focusing on innovative solutions and manufacturing excellence that meet customer expectations, enabling long-lasting success for all our stakeholders.

Guiding us to success
Strong values build the basis for the success of X-FAB, the way we work together and interact with each other and with our stakeholders.

To make tangible what it means to be a customer-oriented company and how our values can guide us to success, X-FAB launched its Group-wide Vision & Values program, a workshop-based concept to introduce all employees and teams to the idea of leadership: leadership as a person spurred by the values of integrity & respect, and leadership as a team spurred by the values of teamwork, commitment, and innovation – all together leading to customer orientation.

Members of X-FAB staff are trained to facilitate the Company's Vision & Values workshops as so-called Values Promoters. In 2018, we kicked

Fig 3.1: The X-FAB values

Our business is not only about what we do but also how we do it. As an international organization with more than 4,000 people from around the globe, we do need clear standards and strong values, and I am proud to be leading a company that has strong values. They help us to make a difference every day – in the way we work together within X-FAB but also with our customers and other business partners.

Rudi De Winter, CEO

Customer orientation starts with our colleagues. Being reliable and delivering the best quality, in collaboration within and across teams, lays the foundation for excellent products and services for our external customers.

Henryk Schoder, VP Human Resources

off the third round of the Vision & Values program focusing on cross-functional leadership and how departments can improve their collaboration. As at year end 2018 and since the start of the Vision & Values initiative, the Values Promoters have facilitated a total of 430 workshops worldwide, resulting in manifold initiatives and concrete actions.

There is no second chance for a first impression

Communication with all its facets is key for successful collaboration with customers. X-FAB therefore launched a Customer Communication Training program tailored to improve the communications skills of all staff members who interact closely with our customers. The four-day program shows how customer service can go from good to great and the dos and don'ts in customer communication using real-life examples. It raises awareness of the perspective of the customer as well as of cultural differences. Finally, it provides useful training in English as a foreign language to master e-mail and telephone conversations.

As at year end 2018, 144 people have been trained with great success, and the Customer Communication Training will continue to be a vital part of X-FAB's journey in becoming the customer-oriented company.

Fig 3.2: Posters displayed at all locations to visualize the X-FAB values and to thank our employees

Semiconductors for automotive markets

X-FAB
technologies for our future.

WE THINK AUTO-MOTIVE

4. OUR BUSINESS

The specialty foundry business model
X-FAB is one of the world's leading specialty foundry groups for analog/mixed-signal semiconductor technologies with a clear focus on automotive, industrial, and medical applications. As a specialty foundry, X-FAB provides manufacturing and strong design support services to its customers that design analog/mixed-signal integrated circuits (ICs) and other semiconductor devices for use in their own products or the products of their customers.

As a pure-play foundry X-FAB does not have its own products, but manufactures ICs based on designs created by its customers or third parties in cooperation and mostly based on X-FAB's portfolio of modular, highly specialized proprietary process technologies and IP.

The X-FAB group has an established track record, with over 25 years of experience providing proprietary manufacturing processes and advanced design and engineering support offerings. Excellent service, remarkable responsiveness and reliability as well as first-class technical support, that's what X-FAB stands for.

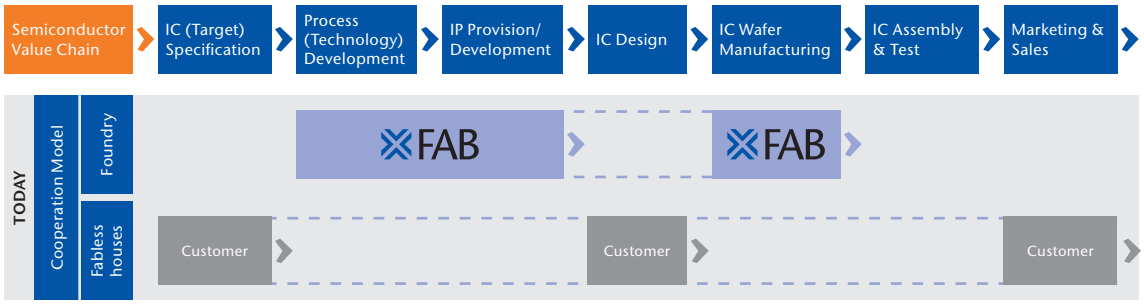


Fig 4.1: Value chains for foundries, fabless companies and IDMs

Manufacturing excellence
X-FAB manufactures analog/mixed-signal ICs utilizing proprietary process technologies and third-party silicon wafers and other raw materials. The modular approach allows customers to choose from a wide range of enhanced analog/mixed-signal functionality options across many semiconductor technologies, designs and processes, including **complementary metal-oxide semiconductor (CMOS), silicon on insulator (SOI), silicon carbide (SiC) and micro-electro-mechanical systems (MEMS).** Customers can then draw on a variety of features, in order to develop ICs specifically tailored to their end-use requirements and to optimize product performance, product size, power consumption, and other parameters. Currently the foundry offers process technologies with feature sizes of 1.0µm, 0.8µm, and 0.6µm on 150 mm wafers and 0.6µm, 0.35µm, 0.25µm, 0.18µm, and 0.13µm on 200 mm wafers.

X-FAB group operates six wafer manufacturing sites in Germany, France, Malaysia, and the United States, with aggregate production capacity of approximately 98,000 200 mm equivalent wafer starts per month (WSPM) to provide customers with their products. All critical process technologies can be sourced from at least two sites.

CMOS and SOI: X-FAB's open-platform technologies
The vast majority of X-FAB's technologies are based on CMOS, with SOI being a specialty variant offering a so-called SOI layer for better technical performance within certain electric parameters. These processes are available for all customers and include performance-optimized primitive analog devices such as low noise transistors, high voltage transistors (up to 700 volt breakdown voltage), or integrated sensor elements such as optical sensor diodes.

X-FAB's DNA: Analog/mixed-signal ICs

X-FAB produces microchips and other semiconductor devices. These microchips and devices prepare real-world signals from the analog world (sensory data such as sound, light, pressure, motion, temperature, etc.) for subsequent digital processing or converting digital values into analog signals. Mixed-signal circuits (also referred to as "analog/mixed-signal ICs") embed both digital and analog circuitry onto a single IC. With more and more electronic devices interfacing with the "real world" (such as through the Internet of Things (IoT)), the demand for such devices increases continually, making mixed-signal semiconductor ICs an increasingly important part of the market for electronic equipment.

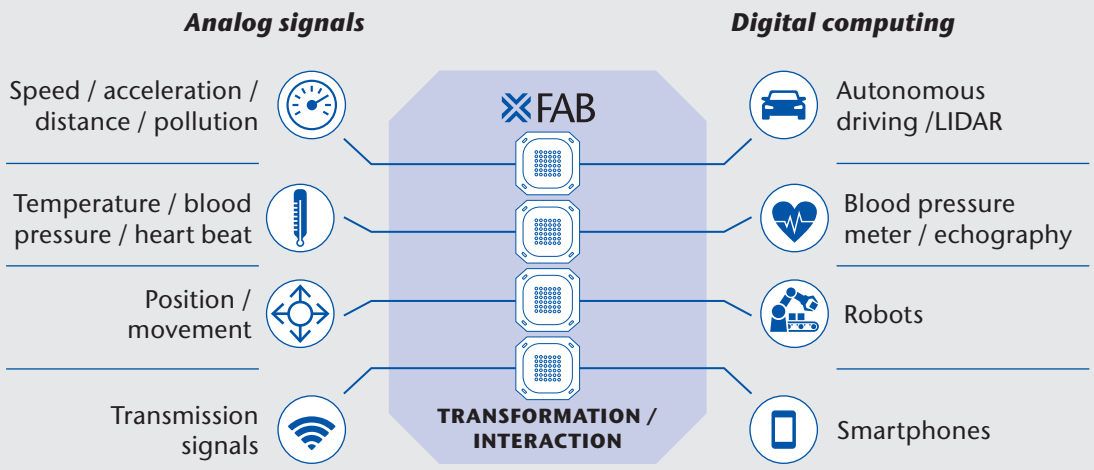


Fig 4.2: X-FAB connects the real world with the digital world by enabling smart applications

The number of analog (including analog/mixed-signal) semiconductors produced annually has grown from approximately 77 billion units in 2008 (McClean Report 2011, Figure 5-1) to approximately 177 billion units in 2018, according to the 2019 McClean Report (Figure 5-4). This market grew by a CAGR of 10.4% between 2016 and 2018 (Figure 5-4) and is expected to grow at a CAGR of 7.4% between 2018 and 2023. (Figure 5-3)

Even though those open-platform technologies typically address multiple applications and sometimes more than one market, most of them are qualified for automotive use and support high temperatures up to 175°C. In 2018, revenues based on X-FAB's CMOS technologies amounted to USD 533.4 million.

The group owns all its technologies and the corresponding IP. The extensive IP offering includes the ability of customers to customize certain IP blocks, thus mixing and matching X-FAB IP with their own IP for optimized functionality as required for their specific application. To enable fast and easy design of new products X-FAB also provides process design kits (PDKs), libraries with digital and analog circuit elements and complex IP blocks such as embedded flash memories, related software, and consultancy services.

X-FAB's technology portfolio (see Figure 4.3) spans from 0.13µm up to 1.0µm. The mature technologies down to the 0.18µm node provide very rich feature sets and thus enable a wide range of applications. X-FAB's approach to extending this portfolio is driven by customer demand to enable further applications, so the feature set for the 0.13µm node will be extended successively and new process nodes will be added eventually. To mention a few examples: current 0.18µm SOI technology is able

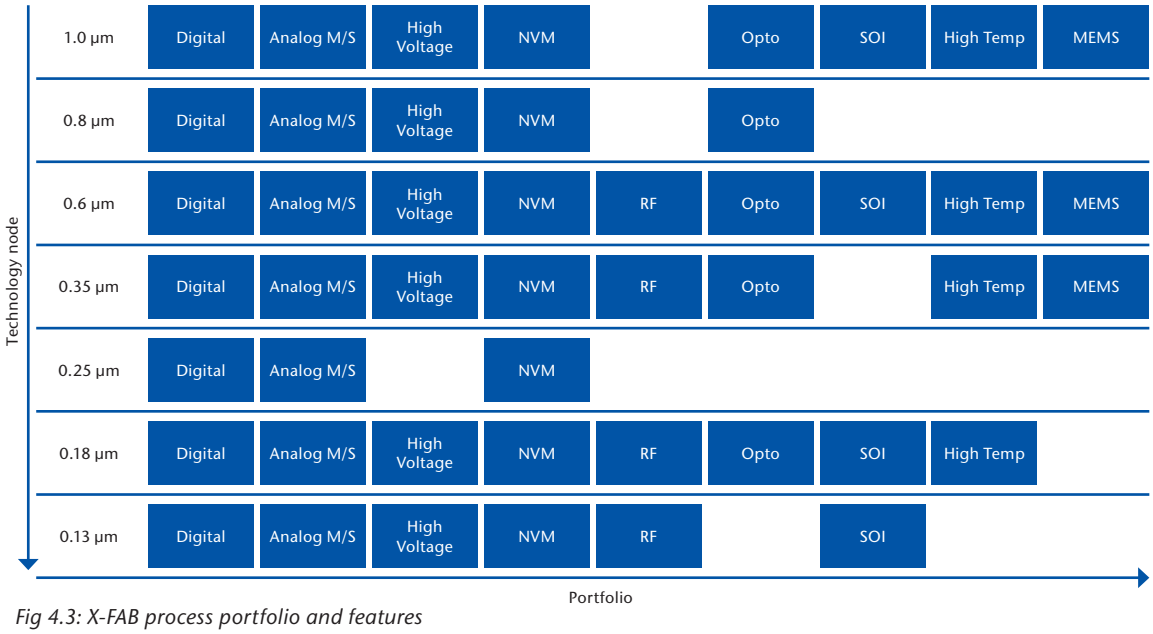


Fig 4.3: X-FAB process portfolio and features

to operate voltages up to 200 volts, which is crucial for medical ultrasound equipment. Integrated optical sensors enable light curtain safety devices for automated factories. And embedded flash memories, which are qualified for automotive applications and support high temperatures, are suited for controller ICs placed in a car close to the motor.

2018 R&D highlights include:

- embedded flash/EEPROM optimized for high temperature 0.18µm SOI technology;
- gallium nitride (GaN) devices produced on 200 mm wafers;
- a multitude of additional options and features added in other open-platform CMOS and SOI technologies as well as additional design libraries and IP;
- XR013 (0.13 µm RF SOI open-platform technology): several modules and features released to customers and several customer designs manufactured; and
- 25 patent applications, with 15 patents granted.

MEMS: Interface to the physical world

Micro-electro-mechanical systems are semiconductor devices that serve as the interface between mechanical properties and electronics. These devices are unique in terms of the device architecture and the manufacturing process. In many cases, the launch of a new MEMS product requires the development of a new customized manufacturing process, frequently accompanied by use of dedicated manufacturing equipment. Standardization – up to the level available in CMOS and SOI technology landscapes – has not been achieved yet. X-FAB took up this challenge and together with industry partners started a program for technology standardization.

Our current MEMS business, which recorded revenues of USD 43.1 million in 2018, can be characterized as follows:

- MEMS technologies at X-FAB are typically used for sensors, actuators, and 3D packaging applications with strong emphasis on products that feature system-on-chip (SoC) integration of MEMS with CMOS ICs.
- Among applications typically manufactured in higher volumes are pressure sensors, acceleration sensors and strain gauges, MEMS microphones, and microfluidic medical devices for cell sorting and drug screening.

One highlight relating to X-FAB's MEMS business in 2018 was the launch of a joint development with a Tier 1 supplier for next-generation automotive adaptive headlight systems. In addition, X-FAB extended its portfolio of open platform pressure sensors targeting automotive applications under harsh environments.

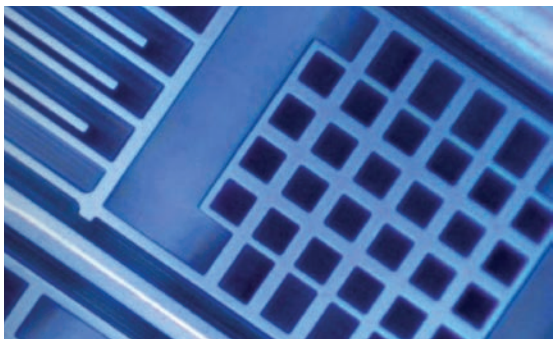


Fig 4.4: A typical structure of a MEMS motion sensor

Silicon carbide: Automotive is now the driving force

SiC devices are now being adopted into many applications. Today's SiC market is being driven by diodes used in power factor correction and photovoltaic applications. The largest opportunity for SiC growth is in the SiC transistor market.

The transistor market will be driven by SiC adoption for automotive applications over the next five to ten years. Systems built on SiC devices enable higher efficiency resulting in a longer driving range of electrical cars. As a result, more than 20 automotive companies are using SiC devices for the on-board charger today. Further use of SiC transistors in the controllers of the electric motor will lead to a compound annual growth rate of more than 100%.

In 2018, X-FAB recorded SiC revenues amounting to USD 11.3 million and achieved the following SiC milestones:

- over 250% annual growth;
- moved 75% of operations from engineering control to manufacturing control; and
- multi-year wafer supply agreement with top rated wafer vendors.

2019 will continue to be a high growth year for the SiC foundry business. X-FAB will grow its customer base globally and has a target revenue CAGR of more than 300%. In 2019, X-FAB will more than double the capacity of the SiC line, bring in internal epi growth capabilities, and continue to maximize other manufacturing efficiencies to remain the leading SiC foundry in the world.

Looking to the future, X-FAB is excited about the prospects as SiC moves into photovoltaics and solar power conversion applications as well as into the electric vehicle (EV) market. X-FAB believes that its automotive quality systems along with the available scale established with silicon processing will enable SiC customers to succeed in this market.

Fig 4.5: X-FAB manufactures SiC semiconductor components used in power conversion applications

Customer orientation: Long-standing relationships and strong product customization

The majority of X-FAB's customers are so-called fabless semiconductor companies (often also called fabless houses): companies that have no own manufacturing and process technology expertise but rely on foundries for those services and related expertise. A smaller part of X-FAB's customer base is either original equipment manufacturers (OEMs) or integrated device manufacturers (IDMs).

X-FAB has a diverse base of 360 customers worldwide and continually wins new customers in its core markets. As can be seen in figure 4.6, the share of customers with annual revenues above USD 1 million increased from 17 in 2005 to 54 in 2018, so that the business' dependency on a small number of customers is reduced.

Due to the high degree of product customization usually required by customers, a specialty foundry is also less vulnerable to the high price, demand, and stock volatility expe-

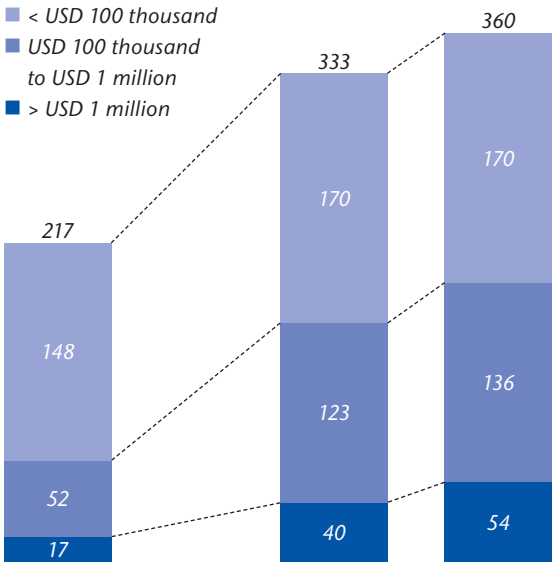


Fig 4.6: X-FAB's customer count by annual revenue. X-FAB has grown to a diverse base of 360 customers worldwide

rienced by many competitors in the broader IC market. At the same time, it tends to serve many more customers at any given point in time, including start-ups and universities, often helping them to realize highly innovative product concepts with prototyping or very small early-volume production. X-FAB's focus on highly customized analog/mixed-signal ICs, resulting in smaller production volumes per each product and requiring more engineering input per unit, is typically yielding higher margins than more commoditized ICs.

Two aspects are important for X-FAB to ensure long-lasting customer loyalty. For more than 90% of products manufactured, X-FAB is the sole source. Because most of the customer products are designed using X-FAB proprietary process technologies and design IP, it would require significant effort to move products to other suppliers. By providing a wide range of design-related product and support services as part of its comprehensive offering, including engineering, technical, and design support, X-FAB typically has strong, long-lasting relationships with those customers.

Those long-standing customer relationships are crucial because a large portion of the products manufactured by X-FAB show long product lifecycles of ten or more years.

X-FAB is offering outstanding technologies and excellent technical support.

Semiconductor manufacturer – feedback on X-FAB's support

Quick response times, high attention from engineering team, good communication.

Manufacturer for automotive- and industrial electronics – feedback on X-FAB's support

Strong technical teams and tool capabilities.

Semiconductor supplier specialized in audio solutions – feedback on X-FAB's support

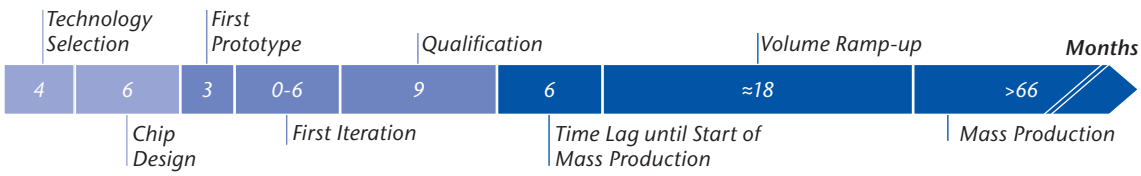


Fig. 4.7: Illustrative lifecycle: Analog/mixed-signal products are much more specialized for their applications and are used for many years

Best-in-class support: X-FAB's close relationships with customers

X-FAB aims to differentiate its business through technology but even more importantly through excellent technical support. A strong asset of X-FAB is its close collaboration with customers. X-FAB employees work in direct contact with customers over the entire lifetime of an IC product. From a request for a quotation and the selection of the best suited process technology to the start of volume production X-FAB has dedicated teams to assist its customers with technical, commercial, and logistical support and consultation. Figure 4.8 shows the assignment of X-FAB teams to every phase of an IC product lifetime.

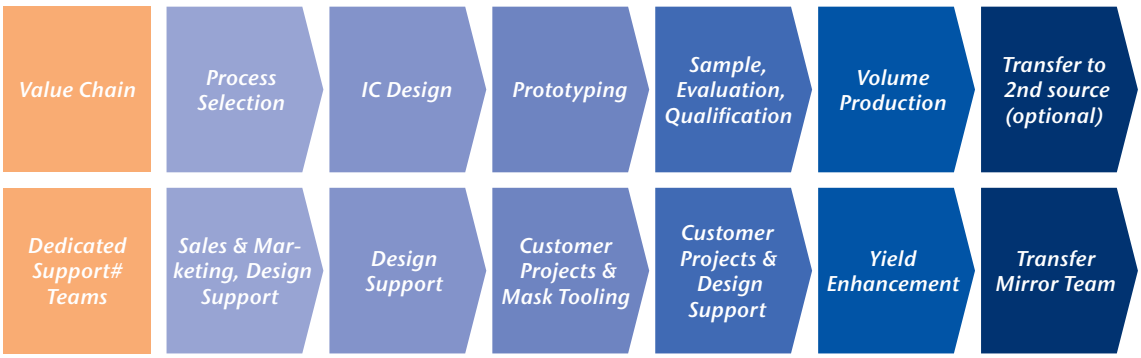


Fig. 4.8: X-FAB offers comprehensive technical customer support along the value chain

X-FAB's strategic markets

X-FAB focuses on three main core businesses, automotive, industrial and medical, which all share the same requirements for quality and reliability and also feature similar market dynamics, including long product lifetimes.

For the total of 2018, revenues in the automotive segment increased by 11% compared to 2017. The revenues in the industrial market segment continued to grow strongly and recorded a year-on-year growth of 27%, while medical revenue increased by 6%.

The X-FAB team worked closely with me and were honest and technically proficient.

Semiconductor company – feedback on X-FAB's support

X-FAB enables innovative solutions to address global challenges such as:

- global warming;
- the replacement of fossil energy by sustainable energy; and
- cost of healthcare and aging population

and is confident of success due to its:

- close collaboration with market leaders in various segments;
- ongoing investment in new technologies;
- wide portfolio of technologies and capabilities; and
- strong pipeline of projects in prototyping stage.

Automotive electronics – building reliability and trust

Product reliability and established trust in suppliers are two key prerequisites for successfully serving the automotive industry. ICs produced at X-FAB can be found everywhere in a car, in the interior as well as under the hood. Functions directly accessible to the driver such as control of the interior lighting, hands-free phone kits, and parking assistance as well as battery management, tire pressure monitoring, and anti-lock braking systems are all exploiting X-FAB technologies. The ever increasing demand for electronic content in all vehicles will lead to future growth for X-FAB.

The electrification of cars requires intelligent solutions for battery management and charging. Safety in traffic will be improved by sophisticated techniques of collision prevention, distance control, lane change assistance,

and blind spot detection, ultimately paving the way for autonomous driving. The increasing relevance of environmental protection is leading to innovations to improve fuel efficiency and reduce pollution. Connected cars will be enabled by the advent of 5G cellular mobile networks.

Fig 4.9: Battery management and charging are key aspects for the electrification of cars

X-FAB is working with its lead customers to address the needs of electronics in automotive innovation.
Among the described growth areas the electrification of vehicles might be the biggest technology shift the automotive industry has ever seen. According to Bloomberg, by 2040 electric vehicles will represent about 55% of global light duty vehicle sales. As cars become more and more sophisticated X-FAB will be right there to develop the technologies to make it happen. For electric vehicles, the biggest challenge is battery life, which is synonymous with driving range. X-FAB already provides advanced technologies, such as high voltage and SiC technologies, to address this technical challenge.

Industrial electronics – supporting higher energy efficiency

The market for application-specific analog ICs for industrial applications is a highly fragmented market spanning applications from avionics to factory automation. About 60% of X-FAB's current customers are in mass production addressing the industrial market and rely on X-FAB's ability to provide volume production over a 10 to 15-year period.

Four global megatrends are driving the next industrial revolution and will change our way of producing, consuming, and living: Industry 4.0 with an end-to-end connected value chain; factory automation including industrial IoT, robots, machine-to-machine communicaart cities, enabling central building management and improving urban lives through interaction and management of connected services; and, finally, sustainable energy through exploiting renewable sources of energy and improving power management.

X-FAB is positioned to play a major role in addressing those megatrends based on its historical commitment to industrial markets and customers. The Group's competitive advantages rely on four pillars:

- We make it very easy for industrial customers to work with X-FAB. Industrial applications usually require small to medium volume and X-FAB can efficiently handle small to medium orders.
- Design support. X-FAB provides comprehensive design support and high-quality IP to achieve first-time-right design. For industrial customers that want to outsource their IC design efforts, X-FAB maintains a global partner network of service providers for design, test, assembly, and supply chain management.
- X-FAB's quality systems. X-FAB's automotive technologies fit well with most industrial applications, which often also operate in harsh environments.
- Be a reliable foundry partner. X-FAB is a trusted supplier and has built long relationships with its industrial customers.

Medical electronics – enabling innovative solutions

The chips X-FAB manufactures for medical applications are used in equipment or devices where people, doctors and patients depend on reliable, accurate and error free operation or data. X-FAB delivers chips for the use in implantable devices from cardiac pacemakers to

implanted hearing aids. For the medical imaging technologies ultrasound and X-Ray X-FAB offers specialized technologies. The ability to integrate CMOS and MEMS is key for lab-on-chip applications including DNA sequencing, cancer diagnosis and pharmaceutical research. Products to monitor patient's state of health like blood pressure monitors and glucose meters leverage from X-FAB's open platform MEMS offering and accurate analog processes.

A trend for the next few years is the evolution of consumer wearables with the aim of medical precision offering the user actionable insights into her or his physical conditions.
Implantable devices are very important for patients with chronic diseases, and research in this area will continue to provide new therapies, for example for rheumatism, strokes, or obesity. Portable devices will move medical imaging from hospitals and medical practices to patients' homes for point-of-care testing. Further trends in ultrasonic imaging are wireless probe heads and 3-D imaging.

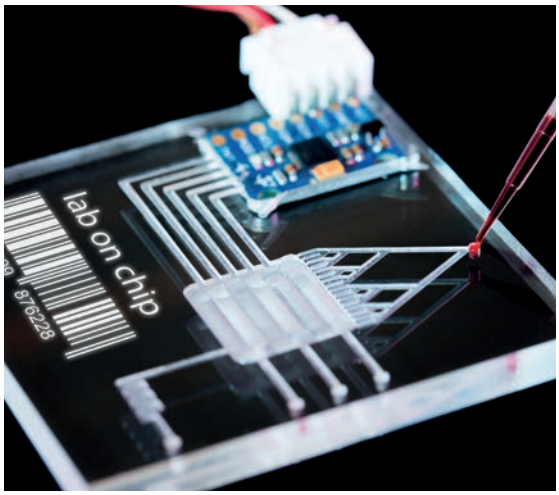


Fig 4.10: Typical lab-on-chip device

With the rapid decline in the costs of DNA sequencing since the availability of next-generation sequencing technology in 2007, new uses have been introduced for health care, industry, and research. Companies offer genetic testing as a service, the analysis of pathogens will help to contain epidemics and the examination of our food will help to identify contaminations or allergens. The availability of affordable genetic information pushes the development of personalized medicine with great benefits for the patients and huge potential for cost-saving in the healthcare sector because of more effective therapies.
Lab-on-chip or microfluidics are devices to handle minute quantities of liquids or biomaterial, usually on a chip or in a small cavity. That is where X-FAB's capability to combine CMOS and MEMS is a key benefit.

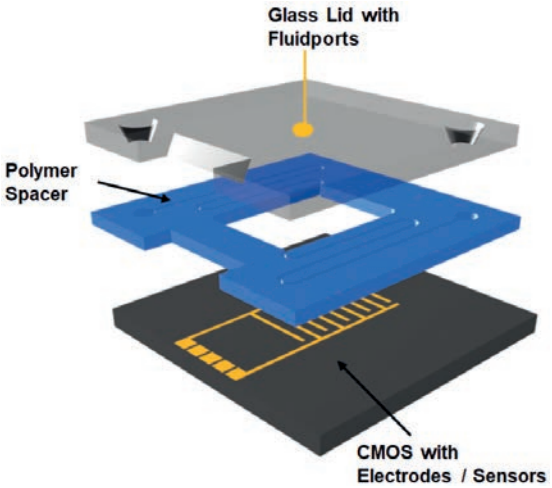


Fig 4.11: Typical configuration of a lab-on-chip device

Figure 4.11 shows a typical configuration of a lab-on-chip device. It consists of a CMOS chip with a glass lid forming a cavity and in this cavity a sample of, for example, blood can be applied. From this sample of blood circulating tumor cells can be extracted and analyzed. A diagnosis can be made earlier and with less risk for the patient compared to traditional biopsy. Other examples are the detection of pathogens, also in a blood sample, or the investigation of individual cells to monitor their reaction to pharmaceuticals.

According to market research, the lab-on-chip market is growing at a CAGR of more than 20% from 2018 until the mid-20s.

WE ENABLE SMART INDUSTRIAL SOLUTIONS

Semiconductors for industrial markets

X-FAB

technologies
for our future.

5. X-FAB CONSOLIDATED FINANCIAL STATEMENTS

5.1 Summary of important developments

Revenue

The Group's total sales revenue in 2018 amounted to USD 587,899 thousand, slightly higher than in the previous year.

Cost of sales

Cost of sales includes material expenses such as raw materials, the costs of maintaining fixed assets, depreciation, staff costs, and costs incurred for external production-related services. In 2018, cost of sales increased by USD 17,944 thousand, representing a 4% increase compared to 2017.

Research and development expenses

Research and development expenses amounted to USD 31,237 thousand in 2018, representing 5% of revenue (2017: 5%). Compared to the previous year the research and development expenses remained at the same level which corresponds with the stable revenue. The Group's research and development activities focus on development of new fabrication processes, optimization of existing processes using the Group's key process technologies, and development of new integrated circuit features in order to meet customers' analog/mixed-signal needs.

General, administrative, and selling expenses

General, administrative , and selling expenses remained stable in 2018. In 2017, general and administrative expenses included USD 197 thousand of costs incurred in connection with the secondary share offering completed in April 2017. These represent costs directly associated with the share offering which do not qualify for presentation as a deduction from equity. Further details concerning the share offering and the associated costs of the offering are provided in the notes to the consolidated financial statements (note 7.7).

Financial result

The net financial result decreased by USD 36,406 thousand from USD 29,099 thousand in 2017 to USD -7,307 thousand in 2018. This decrease is mainly attributable to exchange rate losses on the translation of euro-denominated proceeds from the share issue as a reversal of the prior year's currency exchange gains. Further details are provided in the notes to the consolidated financial statements in notes 6.11 and 6.12.

Net income

The Group recorded net income of 2018 of USD 22,552 thousand compared to USD 89,758 thousand in the previous year.

5.2 Statement of the Board of Directors

The Board of Directors certifies, on behalf and for the account of the Company, that, to their knowledge,

- the consolidated financial statements which have been prepared in accordance with IFRS as adopted by the EU give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the entities included in the consolidation as a whole; and
- the annual report provides a fair view of the development and results of the Company and the companies included in the consolidation, as well as a description of the main risks and uncertainties which they are exposed to.

5.3 Statutory auditor's report to the general meeting of X-Fab Silicon Foundries SE on the consolidated financial statements as of and for the year ended December 31, 2018

In the context of the statutory audit of the consolidated financial statements of X-Fab Silicon Foundries SE ("the Company") and its subsidiaries (jointly "the Group"), we provide you with our statutory auditor's report. This includes our report on the consolidated financial statements for the year ended 31 December 2018, as well as other legal and regulatory requirements. Our report is one and indivisible.

We were appointed as statutory auditor by the general meeting of 16 March 2017, in accordance with the proposal of the board of directors issued on the recommendation of the audit committee. Our mandate will expire on the date of the general meeting deliberating on the annual accounts for the year ended 31 December 2019. We have performed the statutory audit of the consolidated financial statements of X-Fab Silicon Foundries SE for 11 consecutive financial years.

Report on the consolidated financial statements

Unqualified opinion

We have audited the consolidated financial statements of the Group as of and for the year ended 31 December 2018, prepared in accordance with International Financial Reporting Standards as adopted by the European Union, and with the legal and regulatory requirements applicable in Belgium. These consolidated financial statements comprise the consolidated statement of financial position as at 31 December 2018, the consolidated statements of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended and notes, comprising a summary of significant accounting policies and other explanatory information. The total of the consolidated statement of financial position amounts to USD 907.268 thousand and the consolidated statement of profit or loss and other comprehensive income shows a profit for the year of USD 22.552 thousand.

In our opinion, the consolidated financial statements give a true and fair view of the Group's equity and financial position as at 31 December 2018 and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union, and with the legal and regulatory requirements applicable in Belgium.

Basis for our unqualified opinion

We conducted our audit in accordance with International Standards on Auditing ("ISAs") as adopted in Belgium. In addition, we have applied the ISAs as issued by the IAASB applicable for the current accounting year while these have not been adopted in Belgium yet. Our responsibilities under those standards are further described in the "Statutory auditors' responsibility for the audit of the consolidated financial statements" section of our report. We have complied with the ethical requirements that are relevant to our audit of the consolidated financial statements in Belgium, including the independence requirements.

We have obtained from the board of directors and the Company's officials the explanations and information necessary for performing our audit.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matter

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated

financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Valuation of deferred tax assets

We refer to note 4.18 of the consolidated financial statements for the accounting policies relating to deferred taxes and to note 6.13 for the disclosures relating to deferred taxes as at 31 December 2018.

– *Description*

The X-Fab Group, which is subject to various tax jurisdictions and resulting obligations, has a significant amount of unused tax losses carried forward (USD 165,7 million) and deductible temporary differences (USD 343,5 million) for which it has recognized deferred tax assets of USD 34,2 million as at 31 December 2018.

Deferred tax assets are recognized only to the extent that it is probable that sufficient future taxable profits will be generated, against which the unused tax losses carried forward and deductible temporary differences can be utilized. Significant judgement is required to assess the amount of probable future taxable profits that support the recognition of deferred tax assets.

– *Our audit procedures*

In collaboration with our own tax specialists we have assessed the Group's ability to utilize the deferred tax assets. Our procedures included amongst others:

- Obtaining the forecasted taxable income in the various tax jurisdictions and reconciling these to the latest budget and forecasts approved by the board of directors;
- Assessing the consistency and reliability of the Group's approach to budgeting by comparing historical budgets to actual results;
- Challenging management's key assumptions used in its budget and forecasts, such as projected growth rates, by comparing them with our own expectations derived from our knowledge of the industry and our knowledge gained during our audit;
- Recalculating independently the deferred tax assets which comprise a combination of temporary differences between tax and accounting values as well as available tax losses;
- Assessing whether deferred tax assets had been appropriately recognized in the consolidated financial statements as at 31 December 2018 based on the extent to which they can be recovered by future taxable profits;
- Assessing the adequacy of the relevant disclosures.

Board of directors' responsibilities for the preparation of the consolidated financial statements

The board of directors is responsible for the preparation of these consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the European Union, and with the legal and regulatory requirements applicable in Belgium, and for such internal control as board of directors determines, is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the board of directors is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the board of directors either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Statutory auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance as to whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of the users taken on the basis of these consolidated financial statements.

When performing our audit we comply with the legal, regulatory and professional requirements applicable to audits of the consolidated financial statements in Belgium.

As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional skepticism throughout the audit. We also perform the following procedures:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- Obtain an understanding of internal controls relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control;
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by board of directors;
- Conclude on the appropriateness of board of directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group to cease to continue as a going concern;
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation;
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the audit committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the audit committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

For the matters communicated with the audit committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other legal and regulatory requirements

Responsibilities of the Board of Directors

The board of directors is responsible for the preparation and the content of the board of directors' annual report on the consolidated financial statements, the statement of the non-financial information attached to the board of directors' annual report on the consolidated financial statements and the other information included in the annual report.

Statutory auditor's responsibilities

In the context of our mandate and in accordance with the Belgian standard (revised in 2018) which is complementary to the International Standards on Auditing as applicable in Belgium, our responsibility is to verify, in all material respects, the board of directors' annual report on the consolidated financial statements, the statement of the non-financial information attached to the board of directors' annual report on the consolidated financial statements and the other information included in the annual report, and to report on these matters.

Aspects concerning the board of directors' annual report on the consolidated financial statements and other information included in the annual report

Based on specific work performed on the board of directors' annual report on the consolidated financial statements, we are of the opinion that this report is consistent with the consolidated financial statements for the same period and has been prepared in accordance with article 119 of the Companies' Code.

In the context of our audit of the consolidated financial statements, we are also responsible for considering, in particular based on the knowledge gained throughout the audit, whether the board of directors' annual report on the consolidated financial statements contains material misstatements, that is information incorrectly stated or misleading. In the context of the procedures carried out, we did not identify any material misstatements that we have to report to you.

The non-financial information required by article 119 §2 of the Companies' Code has been included in section 6 of the board of directors' annual report on the consolidated financial statements. The Company has prepared this non-financial information based on the Global Reporting Initiative ("GRI") standards. In accordance with art 144 §1,6° of the Belgian Companies' Code, we do not comment on whether this non-financial information has been prepared in accordance with the mentioned GRI standards.

In the context of our audit of the consolidated financial statements, we are also responsible for considering, in particular based on the knowledge gained throughout the audit, whether the board of directors' annual report on the consolidated financial statements and other information included in the annual report, being Chapter 1 'Letter to the stakeholders' contain material misstatements, or infor-

mation that is incorrectly stated or misleading. In the context of the procedures carried out, we did not identify any material misstatements that we have to report to you.

Information about the independence

- Our audit firm and our network have not performed any engagement which is incompatible with the statutory audit of the consolidated accounts and our audit firm remained independent of the Group during the term of our mandate.
- The fees for the additional engagements which are compatible with the statutory audit referred to in article 134 of the Companies' Code were correctly stated and disclosed in the notes to the consolidated financial statements.

Other aspect

- This report is consistent with our additional report to the audit committee on the basis of Article 11 of Regulation (EU) No 537/2014

Hasselt, 21 March 2019

KPMG Réviseurs d'Entreprises/
Bedrijfsrevisoren
Statutory Auditor
represented by

Herwig Carmans
Réviseur d'Entreprises / Bedrijfsrevisor

5.4 Consolidated financial statements

Consolidated statement of profit and loss and other comprehensive income
For the year ended December 31

in thousands of U.S. dollars	Note	2018	2017
Revenue	4.3/6.1/11	587,899	581,687
Cost of sales	6.2/6.6/11	(483,892)	(465,948)
Gross profit		**104,007**	**115,739**
Research and development expenses	4.4/6.3/6.6/11	(31,237)	(28,326)
Selling expenses	6.4/6.6/11	(8,070)	(8,874)
General and administrative expenses	6.5/6.6	(31,499)	(30,306)
Rental income and expenses from investment properties	4.6/6.7/6.8/11	1,021	2,152
Impairment loss on trade receivables		(457)	(475)
Other income and other expenses	6.9/6.10/11	(847)	580
Operating profit		**32,918**	**50,490**
Finance income	4.5/6.11/11	21,296	55,208
Finance costs	4.5/6.12/11	(28,603)	(26,109)
Net financial result		**(7,307)**	**29,099**
Profit before taxes		**25,611**	**79,589**
Income tax	4.18/6.13	(3,059)	10,169
Profit for the period		**22,552**	**89,758**
Attributable to:			
Equity holders of the parent		22,533	89,790
Non-controlling interest	4.1/7.9	19	(32)

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated statement of profit and loss and other comprehensive income (continued)

For the year ended December 31

in thousands of U.S. dollars	Note	2018	2017
Profit for the period		**22,552**	**89,758**
Other comprehensive income			
Items that will not be reclassified to profit or loss			
Remeasurement of defined benefit liability (asset)	7.10	(501)	(98)
Wholly comprising items that are or may be transferred to profit or loss as follows:			
Foreign currency translation differences for foreign operations	4.2	(46)	386
Income tax on other comprehensive income		-	-
Other comprehensive income for the period, net of income tax		(547)	288
Total comprehensive income for the period		**22,005**	**90,046**
Total comprehensive income attributable to:			
Owners of the Company		21,986	90,078
Non-controlling interest	4.1/7.9	19	(32)
Total comprehensive income for the period		**22,005**	**90,046**
Weighted average number of shares outstanding, basic and diluted	6.14	130,631,921	122,412,743
Earnings per share			
Basic and diluted (in U.S. dollars)	6.14	0.17	0.73

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated statement of financial position

in thousands of U.S. dollars	Note	December 31, 2018	December 31, 2017
ASSETS			
Non-current assets			
Property, plant, and equipment	4.7/4.9/4.16/ 4.17/7.1	345,626	315,856
Investment properties	4.7/4.9/7.1	9,415	9,033
Intangible assets	4.8/4.9/7.2	9,023	7,060
Non-current investments	4.10	381	559
Other non-current assets	7.5	20,594	10,809
Deferred tax assets	4.18/6.13	34,234	32,959
Total non-current assets		**419,273**	**376,276**
Current assets			
Inventories	4.12/7.3	147,150	105,847
Trade and other receivables	4.10/7.4/11	71,378	82,008
Income tax receivables	4.18/6.13	1,069	1,997
Other assets	4.10/4.11/7.5	25,630	26,274
Cash and cash equivalents	4.13/7.6	242,768	319,235
Total current assets		**487,955**	**535,361**
Total assets		**907,268**	**911,637**
EQUITY AND LIABILITIES			
Equity			
Share capital	4.14/7.7	432,745	432,745
Share premium	4.14/7.7	348,709	348,709
Retained earnings		(84,782)	(106,814)
Cumulative translation adjustment	4.2/7.7	(539)	(493)
Treasury shares	7.7	(770)	(770)
Total equity attributable to equity holders of the parent		**695,363**	**673,377**
Non-controlling interests	4.1/7.9	364	357
Total equity		**695,727**	**673,734**
Non-current liabilities			
Non-current loans and borrowings	4.10/7.10	72,328	106,178
Non-current provisions	4.15/7.13	86	87
Other non-current liabilities	4.10/7.11	7,360	8,785
Total non-current liabilities		**79,774**	**115,050**
Current liabilities			
Trade payables	4.10/7.12/11	45,889	36,684
Current loans and borrowings	4.16/7.10	31,632	37,799
Income tax payable	4.18/6.13	1,901	503
Provisions	4.15/7.13	3,206	2,914
Other current liabilities	4.10/4.11/7.12	49,139	44,953
Total current liabilities		**131,767**	**122,853**
Total equity and liabilities		**907,268**	**911,637**

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated statement of changes in Group equity

in thousands of U.S. dollars	Note	Shares issued and fully paid	Share capital	Share premium	
At January 1, 2017		**99,531,669**	**265,231**	**255,262**	
Profit for the period					
Remeasurement of defined benefit plans					
Currency translation effect, net of tax					
Total comprehensive income		-	-	-	
Transactions with owners of the Company					
Issue of ordinary shares on April 4, 2017	7.7	31,250,000	167,514	99,062	
Less directly related IPO costs	7.7			(7,389)	
Less deferred tax	7.7/6.13			1,774	
Distribution to non-controlling interests (GVG)	7.9				
Total transactions with owners of the Company		31,250,000	167,514	93,447	
At December 31, 2017		**130,781,669**	**432,745**	**348,709**	
Profit for the period					
Remeasurement of defined benefit plans					
Currency translation effect					
Total comprehensive income		-	-	-	
Transactions with owners of the Company					
Distribution to non-controlling interests (GVG)	7.9				
Total transactions with owners of the Company		-	-	-	
At December 31, 2018		**130,781,669**	**432,745**	**348,709**	

The accompanying notes are an integral part of these consolidated financial statements.

	Retained earnings	Cumulative translation adjustment	Treasury shares	Total attributable to owners of the parent	Non-controlling interests	Total equity
	(196,506)	**(879)**	**(770)**	**322,338**	**400**	**322,738**
	89,790			89,790	(32)	89,758
	(98)			(98)		(98)
		386		386	-	386
	89,692	**386**	**-**	**90,078**	**(32)**	**90,046**
				266,576		266,576
				(7,389)		(7,389)
				1,774		1,774
					(11)	(11)
	-	-	-	**260,961**	**(11)**	**260,950**
	(106,814)	**(493)**	**(770)**	**673,377**	**357**	**673,734**
	22,533			22,533	19	22,552
	(501)			(501)		(501)
		(46)		(46)	-	(46)
	22,032	**(46)**	**-**	**21,986**	**19**	**22,005**
					(12)	(12)
	-	-	-	-	**(12)**	**(12)**
	(84,782)	**(539)**	**(770)**	**695,363**	**364**	**695,727**

Consolidated statement of cash flows
For the year ended December 31

in thousands of U.S. dollars	Note	2018	2017
Cash flow from operating activities:			
Profit for the period		22,552	89,758
Income tax		3,059	(10,169)
Income before taxes		**25,611**	**79,589**
Reconciliation of net income to cash flow arising from operating activities:		**65,978**	**25,332**
Depreciation and amortization, before effect of grants and subsidies	4.7/6.6/ 7.1/7.2	61,492	55,625
Recognized investment grants and subsidies netted with depreciation and amortization	4.17/6.6	(2,820)	(3,622)
Interest income and expenses (net)	4.5/6.11/6.12	1,019	2,935
Loss/(gain) on the sale of plant, property and equipment (net)	4.7/6.9/6.10/ 7.1/7.2	900	8
Loss/(gain) on the change in fair value of derivatives and financial assets (net)	4.11/6.11/10	4,033	(11,698)
Currency differences (net)	8	898	(20,180)
Other non-cash transactions (net)	8	456	2,264
Changes in working capital		**(41,468)**	**(40,526)**
Decrease/(increase) of trade and other receivables	4.10/7.4	10,387	(2,936)
Decrease/(increase) of other assets	7.5	7,992	(14,231)
Decrease/(increase) of inventories	4.12/7.3	(41,304)	(16,875)
(Decrease)/increase of trade payables	4.10/7.12/8	(18,770)	(11,281)
(Decrease)/increase of other liabilities	4.10/4.15/ 7.11/7.12/7.13	227	4,797
Income taxes (paid)/received		(1,020)	(1,153)
Cash flow from operating activities		**49,101**	**63,242**
Cash flow from investing activities:			
Payments for property, plant, equipment, and intangible assets	4.7/7.1	(84,423)	(102,536)
Payments for investments in investment properties	5.9	(679)	-
Payments for investments	10	(150)	-
Payments for loan investments to related parties	11	(199)	(131)
Proceeds from loan investments related parties	11	178	146
Proceeds from the sale of property, plant, and equipment	4.7/7.1	206	91
Interest received	4.5/6.11/6.12	3,156	1,901
Cash flow used in investing activities		**(81,911)**	**(100,529)**

in thousands of U.S. dollars	Note	2018	2017
Cash flow from financing activities:			
Proceeds from loans and borrowings	4.10/7.10	-	-
Repayment of loans and borrowings	4.10/7.10	(34,703)	(32,008)
Payments of lease installments	4.16/7.10	(2,561)	(2,377)
Receipt of government grants and subsidies	4.17	357	375
Interest paid	4.5/6.10/6.11	(2,195)	(2,814)
Gross proceeds from capital increase	7.7	-	266,575
Direct cost related to capital increase	7.7	-	(7,389)
Payment of preference dividend	7.10/8	(1,000)	(3,095)
Distribution to non-controlling interests	7.9	(12)	(11)
Cash flow from financing activities		**(40,114)**	**219,256**
Effects of changes in foreign currency exchange rates on cash balances		(3,543)	33,109
Increase/(decrease) of cash and cash equivalents		(72,924)	181,969
Cash and cash equivalents at the beginning of the period		319,235	104,157
Cash and cash equivalents at the end of the period		**242,768**	**319,235**

The accompanying notes are an integral part of these consolidated financial statements.

Notes to the consolidated financial statements

1 Basic information and description of the X-FAB Silicon Foundries SE Group's business

X-FAB Silicon Foundries SE (hereafter referred to as "X-FAB SE", "the Company" or "the parent company" and, together with its subsidiaries, as "X-FAB SE Group" or "the Group") is a European limited company (Societas Europaea/SE) registered under the number BEO882.390.885 in Hasselt, Belgium. The parent company's registered address is Transportstraat 1, 3980 Tessenderlo, Belgium.

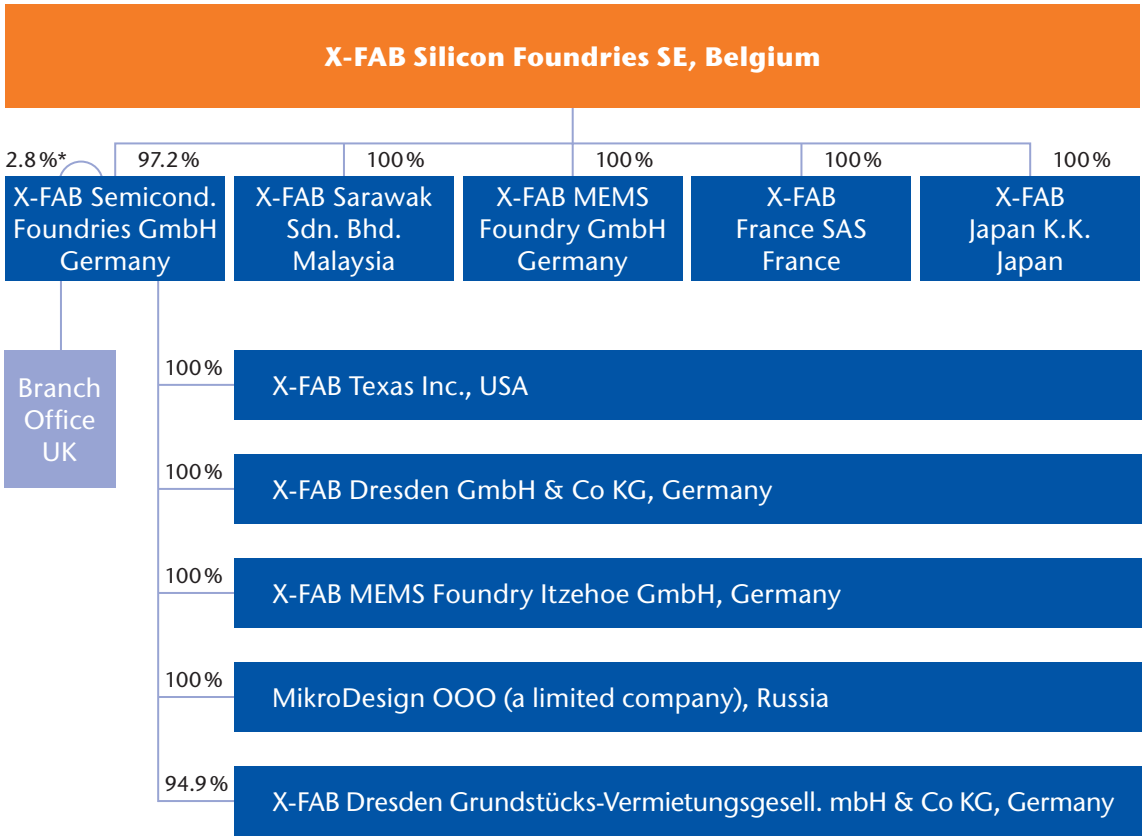
The Group has no associates, joint ventures, joint operations, or investments in unconsolidated structured entities (entities designed so that voting or similar rights are not the dominant factor in deciding which party controls the entity).

The X-FAB SE Group is one of the world's leading pure-play foundry providers specializing in analog/mixed-signal technologies. Analog/mixed-signal products are circuits capable of processing digital as well as analog signals. As a pure-play foundry, the Group develops its own technologies, offering its customers a comprehensive range of product development (design support) and production services. The X-FAB SE Group manufactures integrated circuits to customers' designs, supplying these in the form of silicon wafers. For this purpose, X-FAB SE offers special technology modules, cell libraries, and design kits, which allow the Group's customers to develop specific circuits with broad function spectrums and to accelerate their development processes.

X-FAB SE Group's customers include companies that concentrate on the development of integrated circuits (ICs) and leave their manufacture to others (fabless companies). The Group's customers are primarily in the communication, automotive, consumer, and industrial product sectors, and are located in Europe, the United States, and Asia.

2 Group structure

The X-FAB SE Group structure as of December 31, 2018 is illustrated below.



** Treasury shares of X-FAB GmbH*

X-FAB Dresden GmbH & Co. KG refers to X-FAB Dresden GmbH & Co. KG and X-FAB Dresden Verwaltungs-GmbH

The Group's primary operations are held by X-FAB Semiconductor Foundries GmbH (X-FAB GmbH), X-FAB Dresden GmbH & Co. KG (X-FAB Dresden), X-FAB Texas Inc., Lubbock, Texas (X-FAB Texas), X-FAB Sarawak Sdn. Bhd. (X-FAB Sarawak), and X-FAB France SAS (X-FAB France), each of which operate wafer factories at their respective locations. X-FAB MEMS Foundry Itzehoe GmbH (MFI) and X-FAB MEMS Foundry GmbH (XMF) offer process technologies for the fabrication of micromechanical sensors for the detection of pressure, acceleration, rotation, and IR-radiation including integrated solutions that combine MEMS and CMOS. The remaining entities provide research and development services to other Group entities or serve administrative purposes.

3 Basis of preparation

3.1 Statement of compliance

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) as endorsed by the European Union. All IFRS and IAS standards and associated interpretations were adopted to the extent that they had been endorsed by the European Union by the date of issue of these financial statements.

The consolidated financial statements of X-FAB SE Group for the year ended December 31, 2018 were authorized for issue in accordance with a resolution of the directors on March 19, 2019.

3.2 Basis of measurement

The consolidated financial statements have been prepared on a historical cost basis, except for derivative financial assets and liabilities and certain non-derivative financial investments which are measured at fair value. The net defined benefit liability is measured at the present value of the defined obligation less the fair value of plan assets.

This is the first reporting period in which the Group applies the new accounting standard IFRS 9 Financial Instruments and IFRS 15 Revenue from Contracts with Customers. Changes to significant accounting policies are described in note 4.19.

3.3 Functional and presentation currency

The consolidated financial statements are presented in U.S. dollars (USD), which is the functional and presentation currency of the parent company and the Group's primary operating companies. Amounts are rounded to the nearest thousand except when otherwise indicated. Rounding differences may occur.

3.4 Use of judgments, assumptions, and estimation uncertainties

In preparing these consolidated financial statements management has made judgments, assumptions, and estimates that affect the application of the Group's accounting policies and the reported amounts of assets, liabilities, income, and expenses. Actual amounts may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Judgments

Determination of functional currency

The functional currency of the holding company and most of its subsidiaries has been assessed as the U.S. dollar due to the fact that the currency that mainly influences sales prices for goods and services is the U.S. dollar. Only two subsidiaries have different functional currencies (respectively the euro and the Russian ruble). These subsidiaries are not significant to the Group's consolidated financial statements. Refer to note 10.

With respect to the holding company the assessment is based on the fact that the holding acts as an investment holding (in operational subsidiaries with U.S. dollars as their functional currency) and its sole activity consists of the re-allocation of Group costs which are incurred and subsequently recharged in U.S. dollars. Hence the U.S. dollar is deemed the most appropriate functional currency of the holding for the preparation of the consolidated financial statements.

Revenue recognition (note 4.3)

Judgment was applied in determining whether revenue from the sale of process control wafers should be recognized over time or at a point in time. Based on management's assessment of its contracts with customers, the Group has determined that only a limited number of contracts provide for an enforceable right to payment for performance completed in the case that a customer would cancel a contract for reasons other than any failure to perform as promised. As a result, the potential recognition of contracts over time has been considered to be not material.

Assumptions and estimation uncertainties
Information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment in the next financial year is included in the following notes:

Recognition of deferred tax assets (note 6.13)
Deferred tax assets are recorded where it is considered probable that tax savings will be made in future periods from the use of losses carried forward and from the reversal of taxable timing differences arising on the difference between the accounting and tax values of the Group's assets. Taxable profits and the reversal of timing differences in the next financial year may differ from the amounts assumed, and assumptions made in the next financial year about future taxable profits and reversals of subsequent years may change. Such changes could result in a material adjustment.

Measurement of expected credit losses (ECLs) on trade receivables (note 7.4)
Allowances are made to reflect estimates of the amount of ECLs on any receivables. The actual amount of credit losses for receivables in the year ending December 31, 2019 may differ from the amounts recorded as impairments in the year ended December 31, 2018, which may result in a material adjustment.

Measurement of fair values
A number of the Group's accounting policies and disclosures require the measurement of fair values, both for financial and non-financial assets and liabilities.

If third party information is used to measure fair values, the evidence obtained from third parties is assessed to support the conclusion that such valuations meet the requirements of IFRS 13, including the level in the fair value hierarchy in which such valuations should be classified.

When measuring the fair value of an asset or a liability, the Group uses market observable data as far as possible.

Fair values are classified into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

Level 1: quoted (unadjusted) prices in active markets for identical assets or liabilities.
Level 2: other techniques for which all inputs that have a significant effect on the recorded fair value are observable, either directly or indirectly.
Level 3: techniques that use inputs which have a significant effect on the recorded fair value that are not based on observable market data.

If the inputs used to measure the fair value of an asset or a liability might be categorized in different levels of the fair value hierarchy, then the fair value measurement is categorized in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

The Group measures transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

Further information about the assumptions made in measuring fair values is included in the following notes:

- 7.1 Property, plant, equipment and investment properties
- 7.4 Trade and other receivables
- 7.6 Cash and cash equivalents
- 7.10 Current and non-current loans and borrowings
- 10 Financial instruments – fair values and risk management

4 Summary of accounting policies

4.1 Basis of consolidation
Entities included in the consolidation
The consolidated financial statements include the financial statements of the parent company and its subsidiaries, which are entities directly or indirectly controlled by the parent company. The Group controls an entity when

it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Control is generally obtained by ownership of a majority of shares.

The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases.

The financial statements of the subsidiaries are prepared for the same reporting year as the parent company, using consistent accounting policies.

All intra-group balances, transactions, income, and expenses, as well as profits and losses resulting from intra-group transactions, are fully eliminated in these consolidated financial statements.

Non-controlling interests
Non-controlling interests represent the portion of profit or loss, component of other comprehensive income and net assets of a subsidiary attributable to equity interests that are not owned, directly or indirectly, by the parent company. Non-controlling interests' share of income and share of equity are presented separately in the income statement and within equity in the consolidated statement of financial position respectively, separately from parent shareholder's equity.

Non-controlling interests are measured at the date of acquisition at their proportionate share of the acquired company's identifiable net assets.

4.2 Foreign currency translation
Transactions in foreign currencies are initially recorded at the functional currency rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated at the functional currency rate of exchange ruling at the statement of financial position date. All differences are taken to profit or loss. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate as at the dates of the initial transactions. If the functional currency of a consolidated entity differs from the Group's presentation currency, assets and liabilities of that entity are translated into the presentation currency at the closing rate at the statement of financial position date, whereas equity is translated using the historic rates, and the income statement is translated at the average rate of the reporting period. All resulting differences are recognized in the cumulative translation adjustment in equity.

4.3 Revenue from contracts with customers
The Group accounting policies for recognizing revenue from contracts with customers followed by the Group were amended with effect from January 1, 2018 on implementation of IFRS 15. The Group has applied IFRS 15 retrospectively in these consolidated financial statements. A description of the new standard and how it applies to the Group's contracts with customers is presented in note 4.19. As described in note 4.19, the implementation of IFRS 15 and the associated change in accounting policy has not resulted in any adjustments to the reported amounts of revenues or work in progress or any other separate presentation of contract costs and liabilities as the amounts on initial implementation and subsequent dates are not significant. Therefore there was no impact on the Group's consolidated statement of profit or loss and other comprehensive income, the consolidated statement of financial position, the consolidated statement of changes in Group equity and the consolidated statement of cash flows.

Sales revenue is measured based on the consideration specified in a contract with a customer. Sales revenues are recognized net of discounts, customer bonuses, and rebates granted.
There is no significant uncertainty concerning the nature, amount, or timing of the revenue or the cash flows of the revenues reported. The Group recognizes revenue when it transfers control over a good or service to a customer.

Sale of process control wafers (PCM wafers)
PCM wafers are goods that are generally customer specific, i.e. when manufacturing goods for a customer X-FAB is creating an asset for the customer that has no alternative use to X-FAB. However, for the majority of contracts with its most important customers, X-FAB has determined that it does not have an enforceable right to obtain payment for work completed should a customer cancel an incomplete contract for reasons other than any failure by X-FAB to perform as promised. Accordingly, revenue from the sale of process control wafers (PCM wafers) is recognized when shipment has been made. At this date, control over the goods has passed to the customer. Invoices for the sale are generated at that point in time. Invoices are usually payable within 30 days. No discounts of the invoiced amounts are offered to customers in exchange for prompt payment of invoices. Sales prices with customers do not include a significant financing component.

Sales of non-recurring engineering services (NRE) and technology services
When providing non-recurring engineering services (NRE) and technology services X-FAB creates an asset for a customer that has no alternative use to X-FAB as the prototype wafers created are generally customer-specific. Invoices are issued according to contractual terms – based on milestones – and are usually payable within 30 days. X-FAB has an enforceable right to payment for the performance of work completed up to the agreed milestones. Revenue is therefore recognized over time and X-FAB applies a practical expedient for the measurement of progress. Invoicing based in milestones is a reasonable approximation of the progress made to completing the performance obligation. No discounts of the invoiced amounts are offered to customers in exchange for prompt payment of invoices.

Sales prices with customers do not include a significant financing component.

Rental and other income
Revenue in respect of rental and other income is recognized over time when the relevant service is provided (see 4.6 below).

Warranty obligations
Provisions for warranty obligations are made based on past experience.

Contract costs and contract fulfillment costs
Costs of obtaining contracts requiring capitalization have been incurred by the Group, however the deferral of such costs is not material for the purposes of these consolidated financial statements.

No costs of fulfilling contracts requiring capitalization have been incurred which are not recorded as assets in accordance with IAS 2 Inventories, IAS 16 Property, Plant and Equipment or IAS 38 Intangible Assets.

4.4 Research and development expenses
Research and development expenses comprise staff expenses, depreciation, and other directly attributable expenses and are allocated process based, i.e. relate to research and development activities that are not related to the improvement of the existing production technologies. Costs incurred in connection with improving existing production technologies used in operational production lines are allocated to cost of sales.

Research and development costs are expensed as incurred. X-FAB SE Group considers that development work performed does not qualify for capitalization because the amount of future benefits to be derived from use of work performed is characterized by a high level of uncertainty until the projects are completed.

Government grants are awarded to the Group for its research and development activities in the form of cash tax payments or tax credits. The grants are recognized as income and as a non-current or current asset, as appropriate, when there is reasonable assurance that the entity will comply with the relevant conditions

set out in the terms of the grant arrangement and that the grant will be received. These income related grants are recognized in profit or loss on a systematic basis as the entity recognizes as expenses the costs that the grants are intended to compensate.

4.5 Finance income and finance costs
Interest income or expense is recognized using the effective interest method. Dividend income is recognized in profit or loss on the date on which the Group's right to receive payment is established.

4.6 Rental income from investment properties
Rental income from operating leases on investment property is accounted for on a straight-line basis over the lease term. Lease incentives granted are recognized as an integral part of the total rental income and recognized over the term of the lease.

4.7 Property, plant, equipment, and investment properties
Property, plant, and equipment are measured at purchase cost less accumulated depreciation and accumulated impairment losses. Purchase cost includes expenditure that is directly attributable to the acquisition of the asset. These accounting policies have also been applied to investment properties under the cost model in accordance with IAS 40.

Depreciation is provided using the straight-line method for property, plant, factory/office equipment and investment properties. The following useful lives are used as a basis for calculating depreciation:

- Buildings including investment properties
  40-50 years
- Factory and office equipment
  3-10 years

Depreciation for technical equipment is calculated on a units of production basis, which reflects the expected consumption of the equipment's future economic benefits.

Borrowing costs were not capitalized because no assets qualifying for the capitalization of borrowing costs were constructed or acquired in the period. Costs incurred which extend the useful life of assets, or which increase performance or capacity of assets, are capitalized where appropriate. Maintenance and repair costs are expensed as incurred. When discrete components of an item of property, plant, or equipment have different useful lives, they are accounted for as separate items of property, plant, and equipment.

Assets are recorded as disposals when they are sold or scrapped. The resulting gain or loss is recorded in income within "other income" or "other expenses" as appropriate.

4.8 Intangible assets
Purchased intangible assets are capitalized at purchase cost, including, where applicable, own work capitalized in preparing the intangible assets for use, and depreciated on a straight-line basis over their expected useful lives. The useful life applied is five years.

Internally generated intangible assets were not capitalized because the criteria for capitalization were not met (see note 4.4).

The Group has no intangible assets with indefinite useful lives.

4.9 Impairment
The carrying amounts of the Group's non-financial assets other than inventories and deferred tax assets (for which separate reviews are performed) are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists then the asset's recoverable amount is estimated.

The recoverable amount of an asset or cash-generating unit is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects

current market assessments of the time value of money and the risks specific to the asset. For the purpose of impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (the "cash-generating unit").

An impairment loss is recognized if the carrying amount of an asset or its cash-generating unit exceeds its estimated recoverable amount. Impairment losses are recognized in profit or loss. Impairment losses recognized in respect of cash-generating units are allocated first to reduce the carrying amount of any goodwill allocated to the units and then to reduce the carrying amounts of the other assets in the unit (group of units) on a pro rata basis.

An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

4.10 Financial instruments

As described in note 4.19 below, the Group adopted IFRS 9 Financial Instruments from January 1, 2018.

The accounting policies for financial instruments followed by the Group from January 1, 2018 and prior to January 1, 2018 are described below.

Financial assets – accounting policy from January 1, 2018

Recognition and initial measurement

Trade receivables are initially recognized when they are originated i.e. when or as the goods and services are provided and the revenue for those goods and services is recognized. Regular way purchases and sales of financial assets were accounted for at the settlement date. All other financial assets and financial liabilities are initially recognized when the Group becomes a party to the contractual provisions of the financial instrument.

The Group's trade receivables do not include a significant financing component and the amounts recognized for trade receivables are initially recognized at the transaction price. All other financial assets and financial liabilities are initially recognized at fair value plus, for items not recognized at fair value through profit or loss (FVTPL), transaction costs that are directly attributable to its acquisition or issue.

Classification and subsequent measurement

On initial recognition, a financial asset is classified as measured at: amortized cost; FVOCI – debt investment; FVOCI – equity investment; or FVTPL

(a) Financial assets at amortized cost

A financial asset is classified as measured at amortized cost if it meets both of the following conditions and is not designated as at FVTPL:

- it is held within a business model whose objective is to hold assets to collect contractual cash flows; and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

(b) Debt investments at fair value through other comprehensive income (FVOCI)

A debt investment is classified as measured at fair value through other comprehensive income if it meets both of the following conditions and is not designated as at FVTPL:

- it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and;
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

(c) Equity investments at fair value through other comprehensive income (FVOCI)

An equity investment is classified as measured at fair value through other comprehensive income if it is not held for trading and the Group irrevocably elects to present subsequent changes in the investment's fair value in OCI. This election is made on an investment-by-investment basis.

(d) Financial assets at fair value through profit or loss (FVTPL)

All financial assets not classified as measured at amortized cost or FVOCI as described above are measured at FVTPL. This includes all derivative financial assets, equity investments held for trading and equity instruments not held for trading, but for which the group did not elect to present fair value changes in other comprehensive income.

On initial recognition, the Group may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortized cost or at FVOCI as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

Financial assets – business model assessment

The Group makes an assessment of the objective of the business model in which a financial asset is held at a portfolio level because this best reflects the way the business is managed and information is provided to management. The information considered includes:

- the stated policies and objectives for the portfolio and the operation of those policies in practice.

These include whether management's strategy focuses on earning contractual interest income, maintaining a particular interest rate profile, matching the duration of the financial assets to the duration of any related liabilities or expected cash outflows or realizing cash flows through the sale of the assets;

- how the performance of the portfolio is evaluated and reported to the Group's management;
- the risks that affect the performance of the business model (and the financial assets held within that business model) and how those risks are managed;
- how managers of the business are compensated – e.g. whether compensation is based on the fair value of the assets managed or the contractual cash flows collected; and
- the frequency, volume and timing of sales of financial assets in prior periods, the reasons for such sales and expectations about future sales activity.

Transfers of financial assets to third parties in transactions that do not qualify for derecognition are not considered sales for this purpose, consistent with the Group's continuing recognition of the assets.

Financial assets that are held for trading or are managed and whose performance is evaluated on a fair value basis are measured at FVTPL.

Financial assets – Assessment whether contractual cash flows are solely payments of principal and interest

For the purposes of this assessment, "principal" is defined as the fair value of the financial asset on initial recognition. "Interest" is defined as consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs (e.g. liquidity risk and administrative costs), as well as a profit margin. In assessing whether the contractual cash flows are solely payments of principal and interest, the Group considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition. In making this assessment, the Group considers:

- contingent events that would change the amount or timing of cash flows;
- terms that may adjust the contractual coupon rate, including variable-rate features;
- prepayment and extension features; and
- terms that limit the Group's claim to cash flows from specified assets (e.g. non-recourse features).

A prepayment feature is consistent with the solely payments of principal and interest criterion if the prepayment amount substantially represents unpaid amounts of principal and interest on the principal amount outstanding, which may include reasonable additional compensation for early termination of the contract. Additionally, for a financial asset acquired at a discount or premium to its contractual par value, a feature that permits or requires prepayment at an amount that substantially represents the contractual par amount plus accrued (but unpaid) contractual interest (which may also include reasonable additional compensation for early termination) is treated as consistent with this criterion if the fair value of the prepayment feature is insignificant at initial recognition.

Financial assets – Subsequent measurement and gains and losses:

Financial assets at FVTPL

These assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognized in profit or loss. The Group does not apply hedge accounting and accordingly does not apply alternative allowed accounting treatments permitted for derivatives designated as hedging instruments.

Financial assets at amortized cost

These assets are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairment are recognized in profit or loss. Any gain or loss on derecognition is recognized in profit or loss.

Debt investments at FVOCI

These assets are subsequently measured at fair value. Interest income calculated using the effective interest method, foreign exchange gains and losses and impairment are recognized in profit or loss. Other net gains and losses are recognized in OCI. On derecognition, gains and losses accumulated in OCI are reclassified to profit or loss.

Equity investments at FVOCI

These assets are subsequently measured at fair value. Dividends are recognized as income in profit or loss unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognized in OCI and are never reclassified to profit or loss.

Financial assets – accounting policy prior to January 1, 2018

Prior to January 1, 2018 financial assets were initially recognized at fair value plus any directly attributable transaction costs, with the exception of financial assets recognized at fair value through profit or loss, which were ini-

tially recognized at fair value with transaction costs recorded as an expense. Regular way purchases and sales of financial assets were accounted for at the settlement date.

The Group classifications and subsequent methods used by the Group for its financial assets were as follows:

Financial assets at fair value through profit or loss

Assets held for trading were assets acquired principally for the purpose of with the intention to generating a short-term gain, as well as derivatives which were not subject to hedge accounting, even if they are used for hedging purposes. These assets were measured at fair value and changes therein, including any interest or dividend income, were recognized in profit or loss.

Loans and receivables

Loans and receivables were measured at amortized cost using the effective interest method.

Held-to-maturity investments

Held-to-maturity investments were measured at amortized cost using the effective interest method.

Available-for-sale financial assets

These assets were subsequently measured at fair value and changes therein, other than impairment losses, interest income and foreign currency differences on debt instruments, were recognized in OCI and accumulated in the fair value reserve. When these assets were derecognized, the gain or loss accumulated in equity was reclassified to profit or loss.

Financial liabilities - accounting policy prior to and from January 1, 2018

Financial liabilities are classified as measured at amortized cost or FVTPL. A financial liability is classified as at FVTPL if it is classified as held-for-trading, it is a derivative or it is designated as such on initial recognition. Financial liabilities at FVTPL are measured at fair value and net gains and losses, including any interest expense, are recognized in profit or loss. Other financial liabilities are subsequently measured at amortized cost using the effective interest method. Interest expense and foreign exchange gains and losses are recognized in profit or loss. Any gain or loss on derecognition is also recognized in profit or loss.

Derecognition

Financial assets

The Group derecognizes a financial asset when the contractual rights to the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

The Group enters into transactions whereby it transfers assets recognized in its statement of financial position, but retains either all or substantially all of the risks and rewards of the transferred assets. In these cases, the transferred assets are not derecognized.

Financial liabilities

The Group derecognizes a financial liability when its contractual obligations are discharged or cancelled, or expire. The Group also derecognizes a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognized at fair value.

On derecognition of a financial liability, the difference between the carrying amount extinguished and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognized in profit or loss.

Offsetting

No financial assets or liabilities are presented on a net basis in these consolidated financial statements.

Impairment - accounting policy from January 1, 2018

The Group recognizes loss allowances for the expected credit losses (ECLs) that it expects to incur over the lifetime of financial assets which it measures at amortized cost. An exception is made for cash and cash equivalents that are determined to have a low credit risk at the reporting date that, because of the good standing of the Group's banking partners, is so low that the ECLs are insignificant, and other debt securities and bank balances for which credit risk (i.e. the risk of default occurring over the expected life of the financial instrument) has not increased significantly since initial recognition.

Loss allowances for trade receivables are always measured at an amount equal to lifetime ECLs. When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, the Group considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Group's historical experience and informed credit assessment and including forward-looking information.

The maximum period considered when estimating ECLs is the maximum contractual period over which the Group is exposed to credit risk.

Measurement of ECLs for non-credit-impaired receivables are assessed collectively based on a probability-weighted estimate of credit losses dependent on the number of days the balances are overdue. Expected credit losses are measured based on past experience of the recovery of similar portfolios of receivables as the Group considers this to be a reasonable approximation of the present value of the shortfalls that can be expected in future. ECLs are discounted at the effective interest rate of the financial asset if the discounting effect is determined to be material. Based on the contractual agreements, receivables are in default when the balances are unpaid by the due date. Dunning collection procedures commence when a receivable is 10 days overdue. Receivables are classified as credit-impaired from the date on which the receivable is 90 days overdue, despite dunning procedures having being performed, or from the date any other specific indications are received that a significant deterioration in credit has occurred. Credit-impaired receivables are assessed on a case-by-case basis and assessments of collectability are based on the information available concerning the outstanding balance, including discussions with the customer, assessments of the reliability of the information provided, available counterclaims or security, an understanding of the economic climate in which the customer operates and experience with that customer as well as experience of similar collection procedures.

The relevant amounts are written off when the Group considers that there is no realistic prospect of recovery of the receivable and when no further enforcement activity is taken. When a customer is in liquidation the outstanding amounts are listed and monitored in an ongoing liquidation register until the liquidation process is complete.

Fair values of cash and cash equivalents and current receivables and liabilities

The fair values of cash and cash equivalents, current receivables, and current liabilities approximate their book values due to their short-term nature.

Impairment - accounting policy prior to January 1, 2018

Financial assets were assessed at each reporting date to determine whether there was any objective evidence of impairment. A financial asset was considered to be impaired if ob-

jective evidence indicates that one or more events have had a negative effect on the estimated future cash flows of that asset.

An impairment loss in respect of a financial asset measured at amortized cost was calculated as the difference between the carrying amount of the balance and the present value of the estimated future cash flows discounted at the original effective interest rate. Individually significant financial assets were tested for impairment on an individual basis. The remaining financial assets were assessed collectively in groups that share similar credit risk characteristics.

All impairment losses were recognized in profit or loss. Any cumulative loss in respect of an available-for-sale financial asset recognized previously in equity were transferred to profit or loss. Impairment losses recognized on financial assets recognized at amortized cost were recorded in an allowance account. Impairment losses recognized on financial assets which are carried at fair value were reflected directly in the fair value of those financial assets.

When securities classified as available-for-sale were impaired, an impairment loss was calculated by reference to its fair value. The accumulated fair value adjustments are included in the income statement as gains and losses from investment securities.

When the Group considered that there were no realistic prospects of recovery of the asset, the relevant amounts were written off. An impairment loss was reversed if the reversal could be related objectively to an event occurring after the impairment loss was recognized. For financial assets measured at amortized cost and available-for-sale financial assets that are debt securities, the reversal was recognized in profit or loss. For available-for-sale financial assets that are equity securities, the reversal was recognized directly in equity.

Financial assets which were not impaired were considered collectable in full.

4.11 Derivative financial instruments

The Group holds derivative financial instruments to hedge certain foreign currency and interest risk exposures. Embedded derivatives are separated from the host contract and accounted for separately if the host contract is not a financial asset and certain criteria are met. Derivative financial instruments are not designated as hedging instruments for hedge accounting purposes and are accordingly classified as fair value through profit or loss.

Gains and losses from changes in the fair values of the derivative financial instruments are reported in the income statement within finance income and finance expenses. The fair values of the derivative financial instruments are presented in the statement of financial position as other current assets and/or other current liabilities, as appropriate, unless their maturity exceeds twelve months in which they will be presented as non-current.

The accounting policy for derivative financial assets is identical to the policy followed prior to January 1, 2018, prior to the implementation of IFRS 9.

4.12 Inventories

Inventories of raw materials, consumables and supplies are measured at the lower of cost and net realizable value. The cost of inventories comprises all costs of purchase, cost of conversion, and other costs incurred in bringing the inventories to their present location and condition, determined by using the weighted average acquisition cost method. Allowances are recognized if the carrying amount exceeds the expected sales price less the estimated cost to complete the inventories and the cost of marketing, sales and distribution activities. Allowances are made in full for inventories with no realizable value.

4.13 Cash and cash equivalents

Cash and cash equivalents represent cash in hand, checks, and available balances on bank current accounts with an original maturity of four weeks or less. The use of cash and cash equivalents reported are in general not subject to restrictions with the exception of term deposits reported as cash in note 7.6.

4.14 Equity

Share capital

The nominal paid-in contribution amount on each share is recorded in share capital.

Share premium

Incremental costs directly attributable to the issue of share capital are recognized as a deduction from the share premium account, less any related tax effects.

Treasury shares

The Group reports treasury shares as deductions from the Group equity at the cost of purchase.

Equity instruments and financial liabilities

Equity instruments and financial liabilities (including share capital, loans, redeemable preference shares, loans, and borrowings) are classified according to the substance of the contractual arrangements entered into. An equity instrument is any contract that evidences a residual interest in the assets of the Group after deducting all of its liabilities. Dividends and distributions relating to equity instruments are debited directly to reserves. Equity instruments issued are recorded at the proceeds received, net of direct issue costs. A financial liability exists where there is a contractual obligation to deliver cash or another financial asset to another entity, or to exchange financial assets or financial liabilities under potentially unfavorable conditions. In addition, contracts which result in the entity delivering a variable number of its own equity instruments are financial liabilities. Shares containing such obligations are classified as financial liabilities. Finance costs and gains or losses relating to financial liabilities are included in the income statement. The carrying amount of the liability is increased by the finance cost and reduced by payments made in respect of that liability.

4.15 Provisions

Provisions are recognized when present obligations (legal or constructive) exist which result from past events and which are expected to result in an outflow of resources of which the timing or amount is uncertain. Where the Group expects some or all of a provision to be reimbursed, for example under an insurance contract, the reimbursement is recognized as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is presented in profit or loss. If the effect of the time value of money is material, provisions are discounted using a pre-tax rate that reflects current market assessments of the time value of money and of the risk specific to the liability.

A provision for restructuring is recognized when the Group has approved a detailed and formal restructuring plan, and the restructuring either has commenced or has been announced publicly. A provision for onerous contracts is recognized for each specific contract in which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under the contract.

4.16 Leases

Lease arrangements are either classified as finance leases or operating leases. Arrangements under which the Group carries the significant risks and rewards from the use of an asset, and for which the Group can therefore be described as the economic owner, are treated as finance leases. The resulting assets and liabilities are recorded at the fair value of the asset at the date of the inception of the lease, or, if lower, at the present value of the future minimum leasing payments. All other lease arrangements are classified as operating leases with the consequence that the lease payments are expensed as incurred.

Minimum lease payments made under finance leases are apportioned between the finance expense and the reduction of the outstanding liability. The finance expense is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

Leased assets are depreciated over the useful life of the asset. However, if there is no reasonable certainty that the Group will obtain ownership by the end of the lease term, the asset is depreciated over the shorter of the estimated useful life of the asset and the lease term.

When the Group enters into transactions involving the sale of an asset and the leasing back of the same asset ("sale and leaseback transactions") the accounting treatment depends upon the type of lease involved. If a sale and leaseback transaction results in a finance lease, any excess of sales proceeds over the carrying amount are not recognized as income immediately. Instead, the excess is deferred and amortized over the lease term. If a sale and leaseback transaction results in an operating lease, and it is clear that the transaction is established at fair value, any profit or loss is recognized immediately. If the sale price is below fair value, any profit or loss shall be recognized immediately except that, if the loss is compensated for by future lease payments at below market price, it is deferred and amortized in proportion to the lease payments over the period for which the asset is expected to be used. If the sales price is above fair value, the excess over fair value is deferred and amortized over the period for which the asset is expected to be used. For operating leases, if the fair value at the time of a sale and leaseback transaction is less than the carrying amount of the asset, a loss equal to the amount of the difference between the carrying amount and fair value is recognized immediately. For finance leases, no such adjustment is necessary unless there has been an impairment in value, in which case the carrying amount is reduced to recoverable amount in accordance with IAS 36.

Refer to note 4.19 regarding the new lease standard IFRS 16.

4.17 Subsidies

The Group receives government assistance in the form of government investment grants and investment subsidies which are dependent on the acquisition of certain assets qualifying under the respective grant awards. Grants and subsidies related to assets are recognized when there is reasonable assurance that the entity will comply with the relevant conditions of the grant, and that grant will be received. They are recognized in profit or loss on a systematic basis as the entity recognizes as expenses the costs that the grants are intended to compensate. The investment grants and subsidies received reduce the purchase cost for the relevant subsidized assets recorded under property, plant, and equipment.

The receipt of government assistance is governed by terms set out in law and by specific terms and conditions attached to the applicable grants and subsidies.

4.18 Income taxes

The income tax charge includes current and deferred taxation. Deferred income taxes reflect the tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes and the deferred benefits expected from unused tax losses, unused tax credits, and other credits carried forward, whereby amounts are only recognized when their realization is considered by management to probable. Deferred tax assets and liabilities are measured using the tax rates expected to apply to taxable income in the years in which these temporary differences are expected to be recovered or settled, based on tax rates enacted or substantially enacted at the statement of financial position date.

The measurement of deferred tax liabilities and deferred tax assets reflects the tax consequences that would follow from the manner in which the enterprise expects, at the statement of financial position date, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets are not discounted and are classified as non-current assets in the statement of financial position. Current and deferred tax assets and liabilities are offset only if certain criteria are met. Such criteria mean the entity has a legally enforceable right to set off the recognized amounts and it intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. Deferred tax assets are recognized when it is probable that sufficient taxable profits will be available against which the deferred tax assets can be utilized.

At each statement of financial position date, the Group reassesses unrecognized deferred tax assets and the carrying amount of deferred tax assets. The Group recognizes a previously unrecognized deferred tax asset to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered. The probability of recognition is based on the expected tax profits included in the Group's current business planning. The Group conversely reduces the carrying amount of a deferred tax asset to the extent that it is no longer probable that sufficient taxable profit will be available to allow the benefit of part or that entire deferred tax asset to be utilized. A deferred tax liability is recognized for all taxable temporary differences, unless the deferred tax liability arises from the initial recognition of goodwill or the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss.

4.19 New accounting pronouncements

The following amendments to standards, which are effective for annual periods beginning on or before January 1, 2018, have been applied by the Group for the first time in preparing these consolidated financial statements.

Standard/interpretation	Effective date
IFRS 9 Financial Instruments	January 1, 2018
IFRS 15 Revenue from Contracts, with Customers, including Amendments to IFRS 15: Effective date of IFRS 14 and Clarifications to IFRS 15 Revenue from Contracts with Customers	January 1, 2018
Amendments to IFRS 2: Classification and Measurement of Share-based Payment Transactions	January 1, 2018
Amendments to IFRS 4: Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts	January 1, 2018
Annual Improvements to IFRSs 2014-2016	January 1, 2018
IFRIC 22: Foreign Currency Transactions and Advance Consideration	January 1, 2018
Amendments to IAS 40: Transfers of Investment Property	January 1, 2018

IFRS 9 Financial Instruments

The Group adopted IFRS 9 Financial Instruments from January 1, 2018. IFRS 9 Financial Instruments replaced IAS 39 Financial Instruments: Recognition and Measurement. The standard includes new requirements for recognition and measurement, impairment, derecognition, and general hedge accounting. IFRS 9 defines new classes of financial instruments and determines more specifically the classification of financial instruments in the new classes. IFRS 9 also includes a new approach for determining impairment of non-derivative financial assets, in particular receivables, based on the expected loss model and requires the recording of forward-looking allowances against the potential future impact of losses from defaults on receivables.

Classification and measurement of financial assets and liabilities

IFRS 9 contains three principal classification categories for financial assets: measured at amortized cost, FVOCI and FVTPL. The classification of financial assets under IFRS 9 is generally based on the business model in which a financial asset is managed and its contractual cash flow characteristics. IFRS 9 eliminates the previous IAS 39 categories of held to maturity, loans and receivables and available for sale. Under IFRS 9, derivatives embedded in contracts where the host is a financial asset in the scope of the standard are never separated. Instead, the hybrid financial instrument as a whole is assessed for classification.

IFRS 9 largely carried forward the requirements in IAS 39 for the classification and measurement of financial liabilities.

The following table shows the measurement categories previously applied under IAS 39 and the new measurement categories applied under IFRS 9 for each class of financial assets and liabilities as at January 1, 2018.

The effect of adopting IFRS 9 on the carrying amounts of financial assets at January 1, 2018 relates solely to the new impairment requirements.

in thousands of U.S. dollars	Original classification under IAS 39	New classification under IFRS 9	Carrying amount under IAS 39	Carrying amount under IFRS 9
Financial assets:				
Currency hedge contracts	Held for trading	Mandatorily at FVTPL	4,096	4,096
Trade and other receivables	Loans and receivables	Amortized cost	82,008	81,650
Cash and cash equivalents	Loans and receivables	Amortized cost	319,235	319,235
Total financial assets			**405,339**	**404,981**
Financial liabilities:				
Interest rate swaps	Held-for-trading	Mandatorily at FVTPL		
Bank loans	Other financial liabilities	Other financial liabilities	536	536
Other loans	Other financial liabilities	Other financial liabilities	107,401	107,401
Finance lease liabilities	Other financial liabilities	Other financial liabilities	29,293	29,293
Trade payables	Other financial liabilities	Other financial liabilities	36,684	36,684
Total financial liabilities			**173,914**	**173,914**

With the exception of additional allowances made against trade receivables described in the next paragraph, the carrying amounts of the Group's financial instruments did not change as a result of the transition from categories under IAS 39 to the categories used in IFRS 9 or as the result of any other transition effects, as the Group's financial assets and liabilities were assigned to categories using the same measurement methods used previously.

On, and as a result of, the implementation of IFRS 9 on January 1, 2018 the Group made additional allowances against the potential future impact of losses from defaults on the Group's unimpaired trade accounts receivable amounting to USD 358 thousand, based on the Group's expectation of the rate of default and the expected loss to be incurred in case of default. This expected loss allowance was reduced to USD 200 thousand as at Decem-

ber 31, 2018. Both the initial recognition of the expected loss allowance and the change in the expected loss allowance have been recorded in other expenses in the consolidated statement of profit or loss for the period. The initial recognition of the expected loss allowance was not recorded as an adjustment to opening retained earnings due to the relative insignificance of the amounts. This expected loss allowance is made in addition to the allowances recorded for expected losses on individual impaired balances which had already been recorded in previous reporting periods under IAS 39, the predecessor to accounting standard IFRS 9.

Due to the limited impact of the transition to IFRS 9 and the transition methods chosen the Group has not restated the reported amounts in the consolidated statement of profit or loss and other comprehensive income and consolidated statement of financial position for the financial year 2017.

IFRS 15 Revenue from Contracts with Customers

The group has initially applied IFRS 15 from 1 January 2018, with initial application being retrospectively applied from January 1, 2017.

IFRS 15 Revenue from Contracts with Customers specifies how and when an IFRS reporter will recognize revenue as well as requiring such entities to provide users of financial statements with more informative, relevant disclosures. The standard provides a single, principles-based five-step model to be applied to all contracts with customers. Based on this model revenue is recognized at the moment when control is transferred to the customer (in other words, when the goods are transferred to the customer). This can be at a specific point in time or over a period of time.

As the wafer manufacturing process creates an asset (initially unfinished wafers and then finished wafers) with no alternative use to the Group, X-FAB is required to determine whether it has an enforceable right to payment for performance completed to date at all times during the contract for the case that the contract would be terminated by the customer for a reason other than the entity's failure to perform. For contracts where such a right exists, revenue shall be recognized successively over a period of time on a basis which reflects the progress to meet the Group's obligations under the contract. The standard requires new assets and liabilities to be recorded known as contract assets and liabilities which reflect the difference between the entity's performance completed to date in comparison with the payments made by the customer at the same date. In practice, a contract asset will generally correspond to an invoice to be issued and a contract liability shall be recorded to account for net customer down payments where the performance obligation has not been satisfied, or has only partly been satisfied in a proportion that is less than the proportion of the total consideration represented by the down payments. For all other contracts, revenue shall be recognized at a specific point in time, when the goods are transferred to the customer.

The Group has performed an analysis of its contracts to determine which contracts fulfil the criteria requiring revenue to be recognized over a period of time and which contracts meet the criteria requiring revenue to be recognized when the goods are transferred to the customer. For the analysis the full retrospective method was applied. The implementation of IFRS 15 has not resulted in any adjustments to the reported amounts of revenues or work in progress or any other separate presentation of contract assets/ contract costs and liabilities as the amounts on initial implementation and subsequent dates are not significant. Therefore there was no impact on the Group's consolidated statement of profit or loss and other comprehensive income, the consolidated statement of financial position, the consolidated statement of changes in Group equity and the consolidated statement of cash flows.

The assessment of the contracts in determination of the timing of transfer of control required judgment. The details are set out below:

Type of product	Nature, timing of satisfaction of performance obligations, significant payment terms	Nature of change in accounting policy
Sale of process control wafer (PCM wafer)	In all cases X-FAB does not create an asset with an alternative use as the wafer is generally customer specific. For the majority of contracts/contracts with most important customers X-FAB has determined that there is no enforceable right to payment for performance completed in case a customer would terminale the contract without cause. Specific focus was put on whether such a right to payment also provides for a reasonable profit margin. In addition to the contracts, the legal framework of the countries in which X-FAB operates was analyzed. According to the assessment only a limited number of contracts contain an enforceable right to payment and would require a recognition of revenue over time. Wafer sales are invoiced upon delivery; they do not contain variable consideration and are usually payable within 30 days.	X-FAB has not changed it's accounting policy due to the fact only a limited number of contracts have a right to payment. Therefore, the potential recognition of revenue overtime would be considered as non-material. X-FAB continues to recognize revenue from PCM wafer at a point in time.
NRE and technology services	In all cases of non-recurring engineering services/technology services X-FAB does not create an asset with an alternative use as the prototype wafer is generally customer specific. Invoices are issued according to contractual terms - based an milestones -and are usually payable within 30 days. Revenue is therefore recognized over time and X-FAB applies a practical expedient for the measurement of progress. Invoicing based an milestones is a reasonable approximation of the progress to complete the performance obligation.	X-FAB has not changed it's accounting policy. X-FAB continues to recognize revenue from NRE and technology services over time.
Other revenue	FRS 15 did not have a significant impact an the Group's accounting policies.	IFRS 15 did not have a significant impact on the Group's accounting policies.

Prior to the initial application of IFRS 15, sales revenues from the sale of process control wafer (PCM wafer) revenues were recognized when shipment had been made, transfer of risk to the customer had occurred, the sales price had been agreed upon, adequate assurance that collection will be made had been obtained, and no significant obligations to the benefit of the customer in connection with the realization of the sale re-mained to be performed. The Group recognized revenues depending on when title and risk and rewards are transferred under the specific contractual terms of each sale, which could vary from customer to customer. Revenues in respect of design or engineering services (NRE), rental, and other income were recognized at the point in time when the relevant service was provided. Sales revenues were recognized net of discounts, customer bonuses, and rebates granted. Provisions for warranty obligations were made based on past experience.

Further, the implementation of IFRS 15 did not result in contract costs needing to be capitalized as X-FAB does not incur materials amounts of costs that meet the requirements to be capitalized as costs of obtaining a contract. Our analysis also showed that the implementation of IFRS 15 did not result in fulfillment costs to be capitalized as the relevant costs related to performance are accounted for in accordance with IAS 2, IAS 16 or IAS 38.

Other amendments to standards and new or amended interpretations

None of the remaining amendments to standards and new or amended interpretations had a significant effect on the consolidated financial statements of the X-FAB SE Group.

New standards, amendments to standards and interpretations are effective for annual periods beginning after January 1, 2019

A number of relevant new standards, amendments to standards and interpretations are effective for annual periods beginning after January 1, 2019, and have not been applied in preparing these consolidated financial statements.

Standard/interpretation	Effective date
Amendments to IFRS 9: Prepayment Features with Negative Compensation	January 1, 2019
IFRS 16 Leases	January 1, 2019
IFRIC 23 Uncertainty over Income Tax Treatment	January 1, 2019
Amendments to IAS 28: Long-term Interests in Associates and Joint Ventures	January 1, 2019
Annual Improvements to IFRSs 2015 - 2017*	January 1, 2019
Amendments to IAS 19: Plan Amendment, Curtailment or Settlement	January 1, 2019
IFRS 17 Insurance Contracts*	January 1, 2021
Amendments to References to the Conceptual Framework in IFRS Standards*	January 1, 2020
Amendments to IFRS 3 Business Combinations*	January 1, 2020
Amendments to IAS 1 and IAS 8: Definition of Material*	January 1, 2020

** Not yet endorsed by the European Union.*

Estimated impact of adopting IFRS 16

The Group is required to adopt IFRS 16 Leases from January 1, 2019. IFRS 16 Leases replaces existing guidance on how an IFRS reporter will recognize, measure, present, and disclose leases. The new standard provides a single lessee accounting model, requiring lessees to recognize right-of-use assets representing its right to use the underlying asset and a lease liability representing is obligation to make lease payments. There are recognition exemptions for short-term leases and leases of low-value assets. Lessors continue to classify leases as operating or finance, with IFRS 16's approach to lessor accounting substantially unchanged from its predecessor, IAS 17.

On initial application a lessee can choose to apply IFRS 16 to its leases using either a full retrospective application or by applying a cumulative catch-up approach. The Group has decided to apply the cumulative catch-up approach. Under this approach, comparative financial information is not restated; instead, the Group will recognize the cumulative effect of the initial application of IFRS 16 as an adjustment to the opening balance of retained earnings at January 1, 2019. In addition to applying exemptions for short-term leases and leases of low-value assets on an ongoing basis, the Group will also apply the following additional transition reliefs and practical expedients for leases previously classified as operating leases on initial application:

- right-of-use assets and lease liabilities will not be recognized for leases ending within twelve months of initial application of IFRS 16;
- a single discount rate will be applied to portfolios of leases with reasonably similar characteristics (such as leases with a similar lease term for a similar class of underlying assets);
- hindsight will be used concerning the lease term for contracts containing options to extend or terminate leases; and
- right-of-use assets will be recognized at amounts equal to the lease liability, adjusted, if relevant, by any the amount of any prepaid or accrued lease payments;
- the Group relies on its assessment that no leases are or were onerous contracts immediately before the date of initial application as an alternative to performing an impairment review of right-of-use assets recognized under IFRS 16.

The Group does not intend to apply a simplification procedure permitted under IFRS 16 which permits a lessee to combine lease and non-lease components of a lease for lease accounting purposes.

The Group is currently in the process of completing and testing its calculations of the impact that initial application of IFRS 16 will have on its consolidated financial statements. The Group will recognize new assets and liabilities for leased property and equipment which are currently accounted for as assets held under operating leases. The nature of expenses related to those leases will now change because the Group will recognize a depreciation charge for right-of-use assets and interest expense on lease liabilities. Previously, the Group recognized operating lease expenses on a straight-line basis over the term of the lease, and recognized assets and liabilities

only to the extent that there was a timing difference between actual lease payments and the expense recognized. No significant impact is expected for the Group's finance leases.

Based on the information currently available, the Group estimates that it will recognize additional right-of-use and lease liabilities of USD 20,862 thousand as at January 1, 2019.

The Group has no bank covenants that could be impacted by changes to debt, equity, or other ratios which may change on the adoption of IFRS 16.

Other new or amended standards
The remaining new or amended standards and interpretations are not expected to have a significant effect on the consolidated financial statements of the X-FAB SE Group. The Group does not plan to adopt these standards early.

5 Business combinations

There have been no business combinations in the years ended December 31, 2018 or December 31, 2017 involving the Group.

6 Notes to the consolidated statement of profit or loss

6.1 Revenue
As described in note 4.19, the implementation of IFRS 15 has not resulted in any adjustments to the reported amounts of revenues or work in progress or any other separate presentation of contract costs and liabilities as the amounts on initial implementation and subsequent dates are not significant.

Revenue, which wholly and exclusively represents revenue from contracts with customers, comprises the following (refer to note 9 for revenue by geographic concentration):

in thousands of U.S. dollars	2018	2017
Gross revenue PCM wafer	529,329	527,237
Gross revenue NRE and technology services	58,549	54,435
Other revenue	20	15
Total	**587,898**	**581,687**

No revenue is recognized in the current year from performance obligations satisfied in prior years (e.g. changes in transaction price).

6.2 Cost of sales
The cost of sales comprises the following:

in thousands of U.S. dollars	2018	2017
Material expenses	(123,664)	(124,126)
Depreciation and amortization	(53,336)	(46,616)
Employee-related expenses	(180,735)	(166,480)
Facility costs	(62,207)	(58,695)
Costs of fixed assets (maintenance, spare parts, etc.)	(74,714)	(70,276)
Changes in inventories	12,790	4,822
Grants	10,541	10,128
Other	(12,567)	(14,705)
Total	**(483,892)**	**(465,948)**

The increase in cost of sales was principally due to the higher headcount and to higher depreciation charges made due to investments made in 2018 and 2017.

6.3 Research and development expenses
Research and development expenses comprise the following:

in thousands of U.S. dollars	2018	2017
Material expenses	(9,143)	(10,548)
Depreciation and amortization	(1,417)	(1,330)
Employee-related expenses	(24,463)	(21,628)
Facility costs	(897)	(851)
Costs of fixed assets (maintenance, spare parts, etc.)	(3,843)	(3,853)
External services	(779)	(1,064)
Grants	9,944	9,728
Other	(639)	1,220
Total	**(31,237)**	**(28,326)**

Research and development expenses increased due to an increase of employee related expenses. It is X-FAB's policy to maintain a consistent rate of research and development expenses in relation to revenue.

6.4 Selling expenses

The selling expenses comprise the following:

in thousands of U.S. dollars	2018	2017
Depreciation and amortization	(66)	(62)
Employee-related expenses	(6,976)	(7,650)
Facility costs	(200)	(176)
Costs of fixed assets (maintenance, spare parts, etc.)	(9)	(68)
External services	(191)	(92)
Advertising costs and costs of selling goods	(881)	(1,147)
Other	253	321
Total	**(8,070)**	**(8,874)**

6.5 General and administrative expenses

The general and administrative expenses comprise the following:

in thousands of U.S. dollars	2018	2017
Depreciation and amortization	(2,563)	(2,721)
Employee-related expenses	(21,411)	(20,295)
Facility costs	(1,332)	(1,005)
Costs of fixed assets (maintenance, spare parts, etc.)	(1,795)	(1,073)
External services	(3,043)	(3,232)
Insurance, dues and fees	(1,257)	(1,541)
Other	(98)	(439)
Total	**(31,499)**	**(30,306)**

6.6 Expenses by nature

In the income statement, expenditures are classified by function. Expenses include depreciation charges allocated to the following items:

in thousands of U.S. dollars	2018	2017
Included in cost of sales	(52,538)	(45,957)
Included in research and development expenses	1,037	(1,015)
Included in selling expenses	(66)	(62)
Included in general and administrative expenses	(1,380)	(1,186)
Included in expenses related to investment properties and other expenses	(1,288)	(1,275)
Total	**(56,309)**	**(49,495)**

Expenses include charges for amortization of intangible assets allocated to the following items:

in thousands of U.S. dollars	2018	2017
Included in cost of sales	(798)	(659)
Included in research and development expenses	(380)	(315)
Included in selling expenses	-	-
Included in general and administrative expenses	(1,183)	(1,535)
Total	**(2,361)**	**(2,509)**

Employee-related expenses allocated according to function in the income statement consist of the following:

in thousands of U.S. dollars	2018	2017
Wages and salaries	(176,625)	(166,142)
Social security costs	(38,675)	(34,299)
Contributions to defined contribution plans	(10,101)	(9,109)
Other	(8,184)	(6,503)
Total	**(233,585)**	**(216,053)**

The increase in employee-related expenses was mainly due to an increase of headcount.

Defined contribution plans primarily consist of contributions made under statutory schemes by employers to state-based defined contribution plans.

6.7 Rental income from investment properties

Rental income from investment properties comprises the following:

in thousands of U.S. dollars	2018	2017
Income from technical services provided	6,655	6,618
Income from investment property rentals	5,024	4,523
Total	**11,679**	**11,141**

Property rentals and technical services for tenants represent activities outside the X-FAB SE Group's core activities. Technical services mainly contain the supply of power, water, cooling water, ultra-pure water, bulk gases or compressed dry air.

6.8 Rental expenses related to investment properties

Expenses related to investment properties comprise the following:

in thousands of U.S. dollars	2018	2017
Expenses for technical services provided	(6,949)	(4,597)
Expenses for connection with investment property rentals	(3,708)	(4,391)
Total	**(10,657)**	**(8,988)**

Expenses in connection with investment properties mainly relate to depreciation and building maintenance.

6.9 Other income

Other income comprises the following:

in thousands of U.S. dollars	2018	2017
Gains on disposals of property, plant, and equipment	133	66
Income from recharges	2,867	3,108
Other	687	1,272
Total	**3,640**	**4,397**

The income from recharges primarily results from charges for software maintenance costs to related parties as included in other income with Melexis disclosed in note 11.

6.10 Other expenses

Other expenses comprise the following:

in thousands of U.S. dollars	2018	2017
Losses on disposal of property, plant, and equipment	(1,033)	(74)
Expenses from resales	(2,792)	(3,045)
Other	(662)	(698)
Total	**(4,487)**	**(3,817)**

The expenses from resales primarily relates to costs in connection with the recharges for software maintenances to related parties. Refer to note 11.

6.11 Finance income

Finance income comprises the following:

in thousands of U.S. dollars	2018	2017
Interest on financial assets measured at amortized cost:		
Cash and cash equivalents	3,199	2,044
Change in fair value of financial assets and liabilities at fair value through profit or loss:		
Change in fair value of derivate finacial instruments	242	10,267
Gains on other financial assets classified as held for trading	-	343
Income from exchange rate differences	17,855	42,554
Total	**21,296**	**55,208**

The decrease in income from exchange rate differences is primarily due to the lower level of euro-denominated balances which initially arose as proceeds of the April 2017 share issue and as a result of the decrease of euro-denominated proceeds received following the April 2017 share issue and to the reversal of prior year effects of currency exchange rate changes on the euro-denominated proceeds.

The line item change in fair value of derivative financial instruments includes the unrealized net gain/loss on changes in fair values of interest rate swaps and foreign exchange derivatives. Realized gains and losses on derivative financial instruments relating to interest and foreign exchange are presented in interest income/expenses and income/expenses from exchange rate differences, respectively.

6.12 Finance costs

Finance costs comprise the following:

in thousands of U.S. dollars	2018	2017
Interest on financial liabilities measured at amortized cost:		
Loans and borrowings	(4,218)	(4,979)
Change in fair value of financial assets and liabilities at fair value through profit or loss:		
Change in fair value of derivate finacial instruments	(4,096)	-
Loss on other financial assets classified as held for trading	(179)	-
Expenses from exchange rate differences	(20,110)	(21,131)
Total	**(28,603)**	**(26,110)**

Exchange rate expenses contain the translation effects of euro-denominated loans. Refer to note 7.10. The net loss from derivative financial instruments results from the decrease of the positive fair value compared to prior year due to termination of currency hedge contracts. Refer to note 10.

6.13 Income taxes

Income taxes comprise German corporation and trade taxes (plus solidarity surcharge), Belgian corporation tax charges, French tax and Malaysian tax charges on interest received. United States federal income taxes have not incurred during the reporting period as no taxable income was generated in that country or, sufficient tax losses were available to offset taxable income.

Income taxes in the years 2018 and 2017 comprised the following:

in thousands of U.S. dollars	2018	2017
Current taxes:		
Actual income tax charge for the period	(3,469)	(1,034)
Adjustment of prior years' tax charges	(865)	(79)
	(4,334)	**(1,113)**
Deferred taxes	1,275	11,282
Total	**(3,059)**	**10,169**

The Belgian tax rate applicable for the Group's result was 29.85% in the years 2018 and 33.99% in 2017. The deferred tax assets and liabilities of the foreign subsidiaries are valued based on local tax rates. The Group's various German operations incur federal income taxes and local trade taxes which result in overall applicable tax rates of between 31.58% and 32.28%. The federal income tax rate applicable to the Group's earnings in the United States is 21% (2017: 34.20%), the tax rate applicable on earnings in Malaysia amounts to 24% and the tax rate applicable to X-FAB France is 33.33%.

The reconciliation of the theoretical tax charge based on the IFRS net income before tax is as follows for the years 2018 and 2017:

in thousands of U.S. dollars	2018	2017
Result before taxes	**25,611**	**79,589**
Theoretical tax at combined applicable Belgian tax rate (29.85% in 2018, 33.99% in 2017)	(7,576)	(27,052)
Recognition of previously unrecognized deferred tax on timing differences and tax losses	22,868	25,080
Current year losses for which no deferred tax asset is recognized	(18,191)	(11,968)
Adjustment of prior period tax liabilities recorded in the current period	(864)	79
Effect of tax-free income	3,964	3,971
Currency effects	(5,988)	14,792
Effect of permanent differences	109	-
Effect of non-deductible expenditures	(1,544)	(1,594)
Effect of changes in applicable tax rates enacted during the year	(10)	(55)
Effect of different tax rates applying to foreign operations	4,929	6,916
Differences which are only valid for special taxes	(756)	-
Income/(expense) for income taxes recognized in the consolidated statement of profit or loss	**(3,059)**	**10,169**

Previously unrecognized deferred tax on timing differences and tax losses results in de-

ferred tax income as the Group adjusts the deferred tax to reflect the amount which is expected to be realized in the near future. As described below, the amount recognized in the statement of financial position is based on the Group's current business planning. The amount reported primarily consists of deferred tax assets of USD 34,370 thousand recognized in the Group's Malaysian subsidiary at December 31, 2018 (December 31, 2017 USD 31,039 thousand). The income statement includes a recognition in income in the Group's Malaysian subsidiary (2018 USD 22,690 thousand; 2017: USD 26,866 thousand) which is based on the carrying value at the reporting date, less the amount recognized in the previous year after the amount recognized in the previous year had been reduced by the assets utilized in the current year (utilized in 2018: USD 19,359 thousand; 2017: USD 16,584 thousand).

Currency effects mainly relate to the effect of changes in exchange rates on EUR denominated tax carrying amounts in 2017 and 2018.

The deferred tax assets and liabilities arise from temporary differences and unused tax losses as follows:

in thousands of U.S. dollars	2018	2017
Deferred tax assets - unrecognized amounts	-	-
On unused tax losses	165,662	159,189
On temporary differences		
Property, plant, and equipment/capital allowances	338,513	366,644
Other temporary differences	4,971	5,800
Total unrecognized deferred tax assets	**509,146**	**531,633**
Deferred tax assets - recognized amounts	-	-
On unused tax losses	7,153	9,452
On temporary differences		
Property, plant, and equipment/capital allowances	29,960	27,530
Other temporary differences	(2,878)	(4,023)
Total recognized deferred tax assets	**34,234**	**32,959**

X-FAB SE Group recognizes deferred tax assets resulting from temporary differences and from unused tax losses which exceed the deferred tax liabilities only to the extent that, on the basis of the Group's business planning, the realization of these assets is assessed as probable. This assessment involves a review by management of profits and losses expected in the business plan and limiting recognition of the future tax benefits to take account of potential variances against the business plan. Accordingly, recognized and unrecognized deferred tax assets are subject to estimation uncertainty and there is a significant risk that the carrying amounts will require adjustment in subsequent periods. The estimates are, in particular, subject to the estimation uncertainties inherent in business planning which affect the likely utilization of unused tax losses and subject to potential changes in exchange rates which affect the size of timing differences.

Unrecognized temporary differences on property, plant, and equipment of USD 338,513 thousand (December 31, 2017: USD 366,644 thousand) include deferred tax on USD 1,134,589 thousand (December 31, 2017: USD 1,535,530 thousand) of investment allowances, capital allowances, and other timing differences in Malaysia which can be used to offset future taxable income in the Group's Malaysia subsidiary.

More specifically for the assessment of future available taxable profit with respect to X-FAB Malaysia a risk-adjusted profits approach was applied to the forecasts included in the Group's business planning. This method was applied to reflect the risk that actual taxable profits will fall short of the expectations. The board has determined that adjusting the expected future taxable profits for this component by using a risk factor is appropriate considering the inherent risk in the semiconductor market and the specific exchange rate volatility risks which affect the assessment. In addition, the board has determined that taxable income as from 2022 does not meet the "probable" threshold as required under IFRS standards and is not taken into account for the determination of the amount of deferred tax assets to be recognized.

In particular, tax legislation in the jurisdictions in which the Group operates provide for the full or partial cancellation of unused tax losses on the occurrence of significant changes in the direct or indirect equity ownership of the taxable entity. Accordingly, there is a risk that recognized and unrecognized deferred tax assets may not be realized should such transactions occur in the future.

X-FAB SE and its subsidiaries have unused corporation tax losses as follows:

in thousands of U.S. dollars	2018	2017
Belgian tax loss carry forward (thousands of USD)	-	6,028
German corporation tax loss carry forward	156,035	152,950
German trade tax loss carry forward	178,820	164,038
US federal tax loss carry forward	110,647	100,675
Malaysian tax loss carry forward	363,427	371,598
French tax loss carry forward	54,553	17,569

The Group's French and German tax losses can be carried forward indefinitely, whereby in France and Germany there are restrictions on the amounts that can be utilized in any specific year. US federal tax losses, prior to 2018, expire, if unused, after a period of 20 years, with the Group's first tax losses expiring in 2020. The Group estimates that US tax losses of USD 4,865 thousand will expire in the year 2020 unless utilized. Unabsorbed Malaysian business losses expire after a period of 7 years. Refer to the Malaysian tax reform disclosure. The unused tax losses changed as a result of tax losses in the year, tax losses offset in the year, and in addition, as a result of changes in currency exchange rates. Insignificant changes resulted from changes in estimates between the dates of preparation of the previous year's consolidated financial statements and the finalization of the tax returns and tax assessments of individual entities.

Significant deferred tax balances arise in respect of tax losses carried forward and on timing differences on property, plant, and equipment. A summary of the movements is presented in the table below. Deferred tax balances on other balance sheet positions are presented on a combined basis for this purpose:

in thousands of U.S. dollars	Tax losses carried forward	Property, plant, and equipment	Other temporary differences	Total
Balance at January 1, 2017	**12,039**	**11,698**	**(3,833)**	**19,904**
Recognized in profit and loss	(4,361)	15,832	(190)	11,281
Recognized directly in equity	1,774	-		1,774
Balance at December 31, 2017	**9,452**	**27,530**	**(4,023)**	**32,959**
Set-off of tax	-	488	(488)	-
Net balance at December 31, 2017	**9,452**	**28,018**	**(4,511)**	**32,959**
Balance at January 1, 2018	**9,452**	**27,530**	**(4,023)**	**32,959**
Recognized in profit and loss	(2,299)	2,431	1,143	1,275
Recognized in OCI	-	-		-
Balance at December 31, 2018	**7,153**	**29,961**	**(2,880)**	**34,234**
Set-off of tax	-	103	(103)	-
Net balance at December 31, 2018	**7,153**	**30,064**	**(2,983)**	**34,234**

Changes in recognized deferred tax assets resulted in a deferred tax income of USD 1,275 thousand (2017: income of USD 11,282 thousand). The increase in deferred tax assets recognized in 2017 and 2018 on property, plant, and equipment is due to recognition of previously unrecognized deferred tax assets in Malaysia and other timing differences for the period because it is probable based on achieved and projected operating results that sufficient taxable income will be available against which the Malaysian subsidiary can use the benefits therefrom. The increase was compensated for by a reversal of a prior year's credit of USD 1,774 thousand (parent company). In 2017, transaction costs incurred in connection with the share issue in 2017 resulted in the creation of tax losses being reported by the parent

which were recognized in full in 2017. The resulting USD 1,774 thousand credit for the amount of the deferred tax asset related to the transaction costs is recognized directly in equity.

Malaysian tax reform

During the financial year 2018 the Malaysian government enacted a corporate income tax reform which has an effect on the ability of companies to carry forward tax losses only. With effect from 2019, all unutilized tax losses as at 2018 and from 2019, in a year, can only be carried forward for a maximum period of seven consecutive years to be utilized against income from any business source. The investment tax allowances of the Malaysian subsidiary are still available for future use for an indefinite period of time. The tax reform had no impact within deferred tax recognition.

Belgian tax reform

During the financial year 2017 the Belgian government enacted a corporate income tax reform which has an effect on the rate of corporation tax payable by the Group's parent. The reform is to be effective in two phases- once in 2018 and then in 2020 - and includes a reduction of the corporate tax rate to 29.58% (including a 2% crisis contribution) as from assessment year 2019, and 25% as from assessment year 2021. In addition, following the tax reform, dividends received by the parent company and gains on disposal of subsidiaries will be 100% tax exempt (currently 95%).

To finance these new measures, a minimum tax charge is imposed on companies making more than EUR 1 million profits by placing limits on a basket of corporate tax deductions. The deductions basket contains tax losses carried forward, the dividends received deduction carried forward, the innovation income deduction carried forward, and notional interest deductions. Deductions within the basket can only be claimed on 70% of the profits exceeding the EUR 1 million threshold. The remaining 30% are fully taxable at the new corporation tax rate, with the unused deductibles are carried forward and are available for use in future years.

US tax reform

The United States government enacted the United States Tax Cuts and Jobs Act on December 22, 2017. The Act introduced significant changes to tax laws affecting the Group's US subsidiary. The changes include, among other matters, lower tax rates, amendments to the rules on the carryforward and utilization of federal tax losses and the elimination of the corporate alternative minimum tax. Under these changes, tax losses created in future years may be carried forward indefinitely; however, it will no longer be permissible to set off all taxable profits in any specific year against tax losses of earlier years. Although a full assessment of the effect of the Act has not yet been completed, the Group has made a reasonable assessment of the effect of the changes on the Group's accounting as at December 31, 2018. The Group has recognized a deferred tax asset of USD 662 thousand in respect of an initial analysis of alternative minimum taxes repayable to the Group's US subsidiary following the Act. The Group has not recognized deferred tax assets on US federal tax losses carried forward at December 31, 2018 or 2017.

6.14 Earnings per share

The earnings per share is calculated by dividing the profit for the period attributable to the ordinary shareholders (as reported in the statement of profit or loss and other comprehensive income) by the weighted average number of shares in issue during the period.

The weighted average number of ordinary shares is calculated as follows:

in thousands of U.S. dollars	2018	2017
Issued ordinary shares on January 1	130,632	99,382
Effect of shares issued in April 2017	-	23,031
Weighted average number of ordinary shares	**130,632**	**122,413**

The weighted average number of ordinary shares outstanding for the previous periods has been adjusted for the share split effected on March 16, 2017 as this resulted in a change in the number of ordinary shares outstanding

from 33,127,307 to 99,381,921 without a corresponding change in resources. As a result, the weighted average number of ordinary shares has been adjusted as if the event had occurred at the beginning of the earliest period presented.

No instruments with a potential diluting effect on shareholder's equity have been in issue during the years ended December 31, 2018, or December 31, 2017. Accordingly, there is no potential dilution of the profit attributable to equity shareholders and no difference between basic and diluted earnings per share.

7 Notes to the statement of financial position

7.1 Property, plant, equipment, and investment properties

in thousands of U.S. dollars	Land	Buildings	Technical machinery and equipment	Factory and office equipment	Assets under construction	Total
Net book value January 1, 2018	**13,659**	**41,404**	**202,309**	**5,849**	**52,635**	**315,856**
Accumulated historical cost January 1, 2018	**13,734**	**102,908**	**890,771**	**23,248**	**53,467**	**1,084,128**
Additions	181	2,105	29,720	1,538	55,428	88,972
Disposals	-	(1,718)	(12,842)	(1,245)	(349)	(16,154)
Reclassifications	35	191	47,959	1,143	(49,582)	(254)
Effect of changes in exchange rates	(22)	(223)	(2,087)	(128)	(106)	(2,556)
Accumulated historical cost December 31, 2018	**13,928**	**103,263**	**953,521**	**24,556**	**58,858**	**1,154,126**
Accumulated depreciation January 1, 2018	**(75)**	**(61,504)**	**(688,462)**	**(17,399)**	**(832)**	**(768,272)**
Additions	(18)	(2,886)	(49,725)	(2,548)	(704)	(55,881)
Disposals	-	1,031	12,775	1,242	-	15,048
Reclassifications	-	53	(142)	-	142	53
Effect of changes in exchange rates	(1)	0	460	93	-	552
Accumulated depreciation December 31, 2018	**(94)**	**(63,306)**	**(725,094)**	**(18,612)**	**(1,394)**	**(808,477)**
Net book value December 31, 2018	**13,834**	**39,957**	**228,427**	**5,944**	**57,464**	**345,626**
Net book value January 1, 2017	**13,634**	**43,341**	**171,046**	**5,427**	**32,025**	**265,473**
Accumulated historical cost January 1, 2017	**13,696**	**101,967**	**820,375**	**20,947**	**32,715**	**989,700**
Additions	-	696	23,966	1,324	71,299	97,285
Disposals	-	-	(4,854)	(451)	142	(5,163)
Reclassifications	-	(40)	49,563	1,354	(50,997)	(120)
Effect of changes in exchange rates	38	285	1,721	74	308	2,426
Changes in consolidation						
Accumulated historical cost December 31, 2017	**13,734**	**102,908**	**890,771**	**23,248**	**53,467**	**1,084,128**
Accumulated depreciation January 1, 2017	(62)	(58,626)	(649,329)	(15,520)	(690)	(724,227)
Additions	(13)	(2,894)	(43,770)	(2,292)	-	(48,969)

in thousands of U.S. dollars	Land	Buildings	Technical machinery and equipment	Factory and office equipment	Assets under construction	Total
Disposals	-	-	4,785	421	(142)	5,064
Reclassifications	-	26	-	-	-	26
Effect of changes in exchange rates	-	(10)	(148)	(8)	-	(166)
Accumulated depreciation December 31, 2017	**(75)**	**(61,504)**	**(688,462)**	**(17,399)**	**(832)**	**(768,272)**
Net book value December 31, 2017	**13,659**	**41,404**	**202,309**	**5,849**	**52,635**	**315,856**

Property, plant, and equipment

Additions in technical machinery and equipment and additions in assets under construction mainly refer to capital investments in X-FAB Dresden (USD 28 million), X-FAB Texas (USD 18 million), X-FAB Sarawak (USD 18 million) and X-FAB France (USD 17 million). Assets under construction mainly include investments in technical machinery. Additions in property, plant, and equipment resulted in cash payments in 2018 of USD 84,423 thousand (2017: USD 102,536 thousand). Refer to Statement of cash flows.

The book value of assets held under finance leases at December 31, 2018 comprises assets with a purchase cost of USD 9,520 thousand (December 31, 2017: USD 9,520 thousand) less accumulated depreciation of USD 3,411 thousand (December 31, 2017: USD 2,099 thousand). Depreciation recorded in the income statement of USD 1,312 thousand (2017: USD 1,926 thousand) relates to leased assets. Refer to note 7.10.

At December 31, 2018 property, plant, and equipment with a book value of USD 57 million (December 31, 2017: USD 84 million) had been provided as collateral security to third party lenders.

The Group received investment grants related to the acquisition of qualifying assets totaling USD 357 thousand (2017: USD 375 thousand).

Impairment charges in the amount of USD 704 thousand against the carrying values of assets under construction were recorded within cost of sales in 2018 (2017: none).

Accumulated historical costs have been reduced by investment grants received of USD 124,330 thousand (December 31, 2017: USD 125,023 thousand) and accumulated depreciation has been reduced by USD 112,335 thousand (December 31, 2017: USD 109,675 thousand).

Investment properties

Investment properties consist of properties let to third parties by X-FAB GmbH, X-FAB Dresden, X-FAB Texas, and X-FAB France. The lease arrangements, the majority of which expire at various dates until 2022, continue after expiry unless cancelled by either party within notice periods of between one month and six months.

Investment properties are accounted for at purchase cost less straight-line depreciation. The book and fair values of these properties at the reporting date were as follows:

in thousands of U.S. dollars	2018	2017
Net book value, beginning of period	9,033	9,143
Additions	679	-
Depreciation	(493)	(526)
Disposals	-	-
Reclassifications	195	391
Net book value, end of period	**9,414**	**9,033**
Accumulated cost	32,806	31,879
Accumulated depreciation	(23,392)	(22,846)
Fair value	**25,208**	**22,134**

Properties are reclassified between the land and buildings and investment properties classifications when there is a change in the use of the property (for example, when a property previously used by the Group is let to third

parties or the Group uses a property previously let to third parties).

The fair values of the investment properties relate to properties in Germany (USD 7,931 thousand; December 31, 2017: 9,780 thousand), the USA (USD 2,432 thousand; December 31, 2017: 3,210 thousand), and France (USD 14,845 thousand; December 31, 2017: 9,144 thousand). The fair value measurements of the investment properties have been categorized as a Level 3 fair value based on the inputs to the valuation techniques used. The valuations were performed by independent third party experts with the appropriate professional qualifications and the necessary expertise in the location and category of property for the investment properties in the US and in France and performed by the management of X-FAB SE Group and updated annually for the investment properties in Germany, calculated on the basis of discounted future cash flows, and discounting future rents at a rate of 1.5% (December 31, 2017: 1.5%). The valuation model takes into account the rent per square meter, expected rental growth rates, other costs, and the maturity of the contracts.

No impairment charges were recorded against investment properties in 2018 or 2017.

The table below shows the future cash flows resulting from rental agreements under which X-FAB SE Group is the lessor as of December 31:

in thousands of U.S. dollars	2018	2017
2018		4,216
2019-2023		8,009
Thereafter		1,060
2019	5,863	
2020-2024	11,776	
Thereafter	971	
Total	**18,610**	**13,285**

Future cash flows from rental agreements increased due to new rentals concluded in 2018 at X-FAB France.

Impairment testing for cash-generating units due to impairment triggers identified

For impairment testing purposes each foundry of the Group is defined as a cash-generating unit. If an impairment trigger is identified, management performs an impairment test for the foundries impacted by such an impairment trigger. No impairment triggers were identified in the years 2018 or 2017 and accordingly management did not perform an impairment test.

7.2 Intangible assets

The movements on intangible assets were as follows:

in thousands of U.S. dollars	Licenses	Payments on account	Total
Net book value January 1, 2018	**5,634**	**1,426**	**7,060**
Accumulated historical cost at January 1, 2018	**82,769**	**1,426**	**84,195**
Additions	1,736	2,521	4,257
Disposals	(1,060)	-	(1,060)
Reclassifications	2,024	(2,016)	8
Effect of changes in exchange rates	(8)	-	(8)
Accumulated historical cost December 31, 2018	**85,461**	**1,931**	**87,392**
Accumulated amortization January 1, 2018	**(77,135)**	**-**	**(77,135)**
Additions	(2,298)	-	(2,298)
Disposals	1,060	-	1,060
Effect of changes in exchange rates	3	-	3
Accumulated amortization December 31, 2018	**(78,370)**	**-**	**(78,370)**
Net book value December 31, 2018	**7,091**	**1,931**	**9,022**
Net book value January 1, 2017	**4,150**	**3,724**	**7,874**
Accumulated historical cost at January 1, 2017	**78,888**	**3,724**	**82,612**

in thousands of U.S. dollars	Licenses	Payments on account	Total
Additions	564	1,419	1,983
Disposals	(113)	-	(113)
Reclassifications	3,421	(3,717)	(296)
Changes in consolidation	-	-	-
Effect of changes in exchange rates	9	-	9
Accumulated historical cost December 31, 2017	**82,769**	**1,426**	**84,195**
Accumulated amortization January 1, 2017	**(74,738)**	**-**	**(74,738)**
Additions	(2,509)	-	(2,509)
Disposals	113	-	113
Effect of changes in exchange rates	(1)	-	(1)
Accumulated amortization December 31, 2017	**(77,135)**	**-**	**(77,135)**
Net book value December 31, 2017	**5,634**	**1,426**	**7,060**

Intangible assets in the statement of financial position do not include any capitalized costs of internally generated assets. Payments on account refer to advance and milestone payments made for the acquisition of software licenses and the customization of such software in a project not yet fully completed. Refer to note 4.8.

No impairment charges were required in the years 2018 or 2017.

7.3 Inventories

Inventories comprise the following:

in thousands of U.S. dollars	2018	2017
Materials and supplies	93,869	65,345
Work in progress	50,794	39,380
Finished goods	9,284	5,682
Write-downs	(6,797)	(4,561)
Total	**147,150**	**105,846**

The increase in inventories in 2018 compared to 2017 has been substantially driven by the change in the stock of raw material (raw wafers) that have been ordered to align with the increase of new products.

Changes in work in progress and finished goods totaling USD 13,876 thousand were included in cost of sales in 2018 (2017: USD 6,329 thousand). Write-downs are recorded against inventories and recognized as an expense in cost of sales in the period of USD 1,086 thousand (2017: USD 1,507 thousand). There have not been any reversals of write-downs. Inventories wholly represent amounts which are expected to be realized within twelve months.

7.4 Trade and other receivables

Trade receivables and other receivables comprise the following:

in thousands of U.S. dollars	2018	2017
Trade accounts receivable	50,560	52,711
Amounts due from related party entities	22,380	30,644
Allowances	(1,562)	(1,347)
Total	**71,378**	**82,008**

Trade receivables are generally on 30 to 90-day terms and are non-interest-bearing. They are classified as financial assets at amortized costs for financial reporting purposes. Under consideration of allowances made, the fair values of trade receivables approximate their carrying amount. The accounting for allowances was changed with effect from January 1, 2018, with the initial implementation of IFRS 9. The effect of the change is described in note 4.19. The amounts due from related parties are in respect of trade accounts receivable balances.

As at December 31, the ageing analysis of trade accounts receivables (third parties, net of allowances) is as follows:

in thousands of U.S. dollars	2018	2017
Neither past due nor impaired	33,129	37,037
Past due 1-30 days	13,256	11,045
Past due 31-60 days	1,459	1,344
Past due 61-360 days	1,152	1,662
Past due > 360 days	-	276
Total	**48,996**	**51,364**

Trade receivables due from related parties in 2018 and 2017 include amounts that were past due more than 61 days due from one related party, a customer of X-FAB Sarawak, for which X-FAB has determined that the ultimate collection of amounts outstanding of USD 1,409 thousand (2017: 1,477 thousand) is deemed probable based on an agreed payment plan. Accordingly, no specific write-down has been recorded against this balance. The payment plan requires the customer to settle the outstanding amount in equal installments over a period continuing through 2022.

The Group measures the expected credit losses of trade receivables by using an allowance matrix to measure the expected losses on trade receivable balances, including those with related parties. The allowances are based on the number of days each balance is overdue. The assessment of expected losses on trade receivable balances which are not impaired is based on past experience of credit losses, which the Group considers to be a reasonable approximation of the losses which can be expected in future periods since there are no indications that there will be significant changes in the industry going forward. No distinction by geographic region is made since X-FAB mainly deals with global clients and hence there is no significant difference in risks between the geographic regions where X-FAB is active. In addition there is no significant difference in risks between the type of clients served by X-FAB. Hence no segmentation of client type was made either.
In addition, X-FAB recorded several additional allowances on individual case-by-case assessments for credit-impaired balances.

The following tables provide information on the exposure to credit risk and the loss allowances made for balances which are not credit-impaired as at December 31, 2018 and January 1, 2018:

in thousands of U.S. dollars	Weigted avereage loss rate	Gross carrying amount	Loss allow-ance
Neither past due nor impaired	0,05%	49,243	-25
Past due 1-30 days	0,05%	18,050	-9
Past due 31-60 days	1,00%	1,329	-13
Past due 61-90 days	2,50%	678	-17
More than 90 days past due (less credit impaired)	6,5%	2,078	-135
Total		**71,378**	**(199)**

in thousands of U.S. dollars	2018	2017
Balance of January 1	**(1,347)**	**(1,255)**
Adjustment on initial application of IFRS 9 at January 1	(358)	-
Impairment loss recognized	(15)	(92)
Use of allowance	-	-
Reversal of allowance	-	-
Net remeasurement of loss allowance	158	-
Balance of December 31	**(1,562)**	**(1,347)**

There are no balances which were written off during the period and which continue to be the subject of collection processes.

7.5 Other assets

Other assets comprise the following:

in thousands of U.S. dollars	2018	2017
Other assets	25,630	26,274
Other non-current assets	20,594	10,809
Total	**46,224**	**37,083**

Other non-current assets in 2018 contain USD 20,450 thousand research and development tax credits and competitiveness and employment tax credits attributable to X-FAB France (December 31, 2017: USD 10,657 thousand). These tax credits can be offset against income tax payable by X-FAB France or will be paid to X-FAB France within three years if there is no income tax to be paid. In 2018 and 2017, the increase in the non-current grant receivable by X-FAB France has been presented as a reduction of cost of

sales and research and development expenses consistent with the Group's presentation of the subsidized expenses for the purposes of the consolidated financial statements.
Current other assets comprise the following:

in thousands of U.S. dollars	2018	2017
Taxes (other)	7,743	6,808
Prepaid expenses	8,012	3,597
R&D grants receivable	5,478	5,449
Investment grants and subsidies receivable	61	816
Deposits	704	1,724
Receivables from energy surcharges	2,981	2,954
Derivatives	-	4,096
Other	766	830
Total	**25,745**	**26,274**

The increase in prepaid expenses in 2018 relates to prepayments made for raw wafers in the amount of USD 6.000 thousand. Research and development grants receivable in 2018 include USD 4,800 thousand (December 31, 2017: USD 4,800 thousand) of grants receivable attributable to X-FAB Sarawak. Refer to note 12.1. Derivatives (USD/EUR exchange forward contracts as well as the hedging contracts in respect of the Malaysian ringgit) were terminated in first half of 2018. Refer to note 10.

The deposits mainly represent security deposits provided as collateral security and are classified as current assets as they are either in connection with contractual arrangements which may be cancelled at short notice or are expected to be released within twelve months on other grounds.

7.6 Cash and cash equivalents

Cash and cash equivalents comprise the following:

in thousands of U.S. dollars	2018	2017
Cash and bank balances	238,944	315,238
Cash Pooling balances	1,025	1,223
Term deposits	2,800	2,774
Total	**242,769**	**319,235**

The movements of cash and cash equivalents are reported in the cash flow statement in 2017 included net cash inflows of USD 259,186 thousand generated from the initial public offering (reported net of directly related IPO costs of USD 7,389 thousand incurred in connection with the offering) described in note 7.7.

Term deposits and some cash at bank balances earn interest at floating rates based on daily bank deposit rates. The fair values of cash and short-term deposits are identical to the carrying amounts.

7.7 Equity

Share capital

X-FAB Silicon Foundries SE has 130,781,669 fully paid-in ordinary shares in issue at December 31, 2018. Each share carries one vote at the Company's general meetings. The 130,781,669 fully paid-in ordinary shares in issue at December 31, 2018 and December 31, 2017 include 33,177,223 shares in issue as of January 1, 2017, which were subsequently converted to 99,531,669 shares by means of a share split in March 2017, as well as 31,250,000 new shares with a fractional value of EUR 5.0271 per share which were issued during the initial public offering (IPO) at Euronext Paris at an exercise price of EUR 8.00 per share in April 2017. The share capital increased by a total of EUR 157,098 thousand (USD 167,513 thousand) in 2017 as a result of the IPO and amounted to USD 432,745 thousand at December 31, 2018 and December 31, 2017.

Share premium

The share premium of X-FAB Silicon Foundries SE increased by EUR 92,902 thousand (USD 99,062 thousand) representing the excess of paid-in capital (EUR 8.00 per share) over fractional value (EUR 5.0271 per share) for the shares issued in April 2017.

Costs directly attributable to the issuance of new shares within the primary offering in April 2017 (such as underwriter fees, comfort letter costs) were deducted from in equity and qualifying costs that related to both existing shares and new shares (such as legal and roadshow costs) and were allocated to equity in

proportion to the number of shares relating to the primary offering (62.5%). The remaining costs were presented as an expense in general and administrative expenses. The IPO costs deducted from share premium totaled USD 7,389 thousand, net of related tax effects of USD 1,774 thousand. The Company received net cash inflows of USD 259,187 thousand as a result of the new shares issued in the IPO, net of associated expenses.

The portion of the IPO expenses recorded in general and administrative expenses in 2017 amounted to USD 197 thousand.

Retained earnings
Retained earnings represent the historical balance of cumulative losses of the Group together with the cumulated balance of the re-measurement of defined benefit plans attributable to owners of the parent. The negative retained earnings primarily result from the Group's acquisition of X-FAB Sarawak Sdn. Bhd. under a "reverse acquisition transaction" in 2006.

Cumulative translation adjustment
The translation reserve comprises all foreign currency differences arising from the translation of the financial statements of foreign operations that have functional currencies other than USD.

Treasury shares
At December 31, 2018 the Group held 149,748 treasury shares (after the share split) of X-FAB Silicon Foundries SE held by its fully owned subsidiary X-FAB GmbH. Based on the purchase price of EUR 11.25 before share split, the treasury shares reduced the equity capital of the parent company by USD 770 thousand (December 31, 2017: USD 770 thousand).

Share-based payment arrangements
The Group had no share-based payment arrangements and no share option programs during the years ended December 31, 2018, or December 31, 2017.

Authorization to acquire treasury shares
In accordance with the Belgian Companies Code, the Articles of Association permit the Company to acquire, on or outside the stock market, its own shares, profit-sharing certificates or associated certificates by resolution approved by the Shareholders' Meeting by a majority of at least 80% of the votes cast where at least 50% of the share capital and at least 50% of the profit certificates, if any, are present or represented. Prior approval by the shareholders is not required if the Company purchases the shares in order to offer them to the Company's employees.

On March 16, 2017, an extraordinary Shareholders' Meeting authorized the Board of Directors to purchase up to 20% of the outstanding shares, for a price not lower than 10% below the lowest closing price in the last 30 trading days preceding the transaction and not more than 5% above the highest closing price during the last 30 trading days preceding the transaction. This authorization is valid for five years from March 16, 2017.

The above authorization is also valid if the acquisition is made by one of the subsidiaries directly controlled by the Company, as set out in Article 5 SE Regulation juncto Article 627 of the Belgian Companies Code.

The Board of Directors is also authorized to acquire for the Company's account the Company's own shares, profit-sharing certificates, or associated certificates if such acquisition is necessary to prevent any serious and imminent harm to the Company. This authorization is valid for three years as from the date of the publication of the authorization in the Annexes to the Belgian State Gazette (Belgisch Staatsblad/Moniteur belge).

The Board of Directors is authorized to divest all or part of the shares, profit-sharing certificates, or associated certificates at a price it determines, on or outside the stock market or in the framework of its remuneration policy to employees, directors, or consultants of the Company or to prevent any serious and imminent harm to the Company. This authorization is valid without any restriction in time, except when the divestment is made to prevent seri-

ous and imminent harm to the Company, in which case the authorization is only valid for three years as from the date of the publication of the authorization in the Annexes to the Belgian State Gazette (Belgisch Staatsblad/ Moniteur belge). The authorization covers the divestment of the shares, profit-sharing certificates, or associated certificates by a direct subsidiary of the Company, as set out in Article 5 SE Regulation juncto Article 627 of the Belgian Companies Code.

The shares, profit-sharing certificates, or associated certificates can only be acquired with funds that would otherwise be available for distribution as dividend. The total nominal value or fractional value of the shares, profit-sharing certificates or associated certificates held by the Company can at no time be more than 20% of the share capital. Voting rights attached to shares held by the Company as treasury shares are suspended.

7.8 Dividends

No dividends were resolved or paid in the years 2018 or 2017.

Under Belgian company law, the shareholders decide on the distribution of profits at the annual Shareholders' Meeting, based on the latest audited statutory accounts of the Company. Dividends may be paid either in cash or in kind. However, shareholders may not declare a dividend if the Company has not first reserved at least 5% of its profits for the financial year until such reserve has reached an amount equal to 10% of its share capital (the "Legal Reserve") or if, following any such dividend, the level of the net assets adjusted for the unamortized balance of the incorporation costs and capitalized research and development costs of the Company falls below the amount of the Company's paid-in-capital and of its non-distributable reserves. The Board of Directors may pay an interim dividend, provided certain conditions set forth in Belgian company law are met.

7.9 Non-controlling interests

The non-controlling interests for the period and the accumulated non-controlling interests represent the 5.1% (December 31, 2017: 5.1%) non-controlling shareholders' interests in the subsidiary GVG. GVG is a property management company responsible for the administration of certain of the Group's properties in Dresden, Germany.

GVG net profit for the financial year 2018 amounted to USD 523 thousand (2017 net loss: USD 345 thousand). GVG had total assets amounting to USD 10,302 thousand at December 31, 2018 (December 31, 2017: USD 10,751 thousand), liabilities of USD 7,244 thousand (December 31, 2017: USD 8,204 thousand), and equity of USD 3,058 thousand (December 31, 2017: USD 2,547 thousand). The currency translation effect of the retranslation of non-controlling interests in GVG is not material to the movements on other comprehensive income or the statement of movements on equity.

7.10 Current and non-current loans and borrowings

The Group has unused credit lines available from bank loans as following:

in thousands of U.S. dollars	2018	2017
Unused credit lines		
Unused credit lines denominated in EUR - fixed rates	4,587	4,795
Interest rates: 4.43%		
Unused credit lines denominated in EUR - variable rates	5,733	11,988
Interest rates: EURIBOR +2.94%/ EURIBOR +3.0%		

The following table provides a reconciliation of the movements in liabilities to the cash flows arising from financing activities for year 2018:

in thousands of U.S. dollars	Liabilities		Derivatives		
	Loans and borrowings	Finance lease liabilities	Interest rate swaps and forward exchange contracts - assets	Interest rate swaps and forward exchange contracts - liabilities	
Balance at December 31, 2017	**136,694**	**7,284**	**(4,096)**	**536**	
Changes from financing cash flows					
Proceeds from loans and borrowings					
Repayment of loans and borrowings	(34,703)				
Repayment of loans and borrowings from related parties					
Receipts from finance leases					
Payments of lease installments		(2,561)			
Interest paid	(2,080)	(115)			
Gross proceeds from capital increase					
Direct cost related to capital increase					
Payment of preference dividend	(1,000)				
Distribution to non-controlling interests					
Receipt of investment government grants and subsidies					
Total changes from financing cash flows	**(37,783)**	**(2,676)**	**-**	**-**	
Other changes					
Effect of changes in foreign exchange rates	**(3,556)**	**(222)**			
Changes in fair value			**4,096**	**(219)**	
Liability related					
Interest expenses	4,103	115			
Equity related					
Total liability related other changes	**4,103**	**115**	**-**	**-**	
Total equity related other changes					
Balance at December 31, 2018	**99,458**	**4,501**	**-**	**317**	

	Other	Equity				
		Share capital	Share premium	Retained earnings	NCI	Total
	375	**432,745**	**348,709**	**(106,814)**	**357**	**831,235**
						-
						(34,703)
						-
						-
						(2,561)
						(2,195)
						-
						-
						(1,000)
					(11)	(11)
	357					357
	357	**-**	**-**	**-**	**(11)**	**(40,113)**
						(3,778)
						3,877
						4,218
				22,031	**19**	**22,050**
	-	**-**	**-**	**-**	**-**	**4,317**
			-	**22,031**	**19**	**22,050**
	732	**432,745**	**348,709**	**(84,783)**	**365**	**813,711**

The following table provides a reconciliation of the movements in liabilities to the cash flows arising from financing activities for year 2017:

in thousands of U.S. dollars	Liabilities		Derivatives		
	Loans and borrowings	Finance lease liabilities	Interest rate swaps and forward exchange contracts - assets	Interest rate swaps and forward exchange contracts - liabilities	
Balance at January 1, 2017	**155,198**	**8,642**	**-**	**6,707**	
Changes from financing cash flows					
Proceeds from loans and borrowings					
Repayment of loans and borrowings	(32,008)				
Repayment of loans and borrowings from related parties					
Receipts from finance leases					
Payments of lease installments		(2,377)			
Interest paid	(2,610)	(204)			
Gross proceeds from capital increase					
Direct cost related to capital increase					
Payment of preference dividend	(3,095)				
Distribution to non-controlling interests					
Receipt of investment government grants and subsidies					
Total changes from financing cash flows	**(37,713)**	**(2,581)**	**-**	**-**	
Other changes					
Effect of changes in foreign exchange rates	**14,434**	**1,011**			
Changes in fair value			**(4,096)**	**(6,171)**	
Liability related					
New finance leases		8			
Interest expenses	4,775	204			
Equity related					
Total liability related other changes	**4,775**	212	**-**	**-**	
Total equity related other changes					
Balance at December 31, 2017	**136,694**	**7,284**	**(4,096)**	**536**	

	Other	Equity				
		Share capital	Share premium	Retained earnings	NCI	Total
	-	**265,231**	**255,262**	**(196,506)**	**400**	**494,934**
						-
						(32,008)
						-
						-
						(2,377)
						(2,814)
		167,514	99,062			266,576
			(7,389)			(7,389)
						(3,095)
					(11)	(11)
	375					375
	375	**167,514**	**91,673**	**-**	**(11)**	**219,257**
						15,445
						(10,267)
						8
						4,979
			1,774	**89,692**	**(32)**	**91,434**
	-	-	-	-	-	**10,165**
			1,774	**89,692**	**(32)**	**91,434**
	375	**432,745**	**348,709**	**(106,814)**	**357**	**831,235**

Carrying amounts and fair values
The carrying amounts of the Group's loans and borrowings at December 31 are shown in the following table:

in thousands of U.S. dollars	2018	2017
Bank loans and overdrafts		
Fixed interest bank loans denominated in EUR	50,009	78,163
Maturity: 2020-2021		
Interest rates: 1.4%–2.7%		
Repayments in monthly or quarterly installments		
Variable interest bank loans denominated in EUR	18,926	29,238
Maturity: 2019-2021		
Interest rates: EURIBOR + 1.58%-EURIBOR + 2%		
Repayments in quarterly installments		
Loan State Financial Secretary of Sarawak denominated in USD	30,523	29,293
Maturity: 2030		
Interest free and 2.0% preference dividend		
Repayment at maturity date		
Leasing arrangements		
Finance leasing liabilities denominated in EUR	4,501	7,283
Maturity: 2019-2021		
Interest rates: 0.6-9.6%		
Repayment in monthly installments		
Total	**103,959**	**143,977**
Current loans and borrowings	**31,632**	**37,799**
Non-current loans and borrowings	**72,327**	**106,178**

The Group's exchange rate gains and losses include exchange rate gains of USD 3,778 thousand resulting from the translation of euro-denominated loans (2017: exchange rate losses of USD 15,445 thousand)
The fair value of loans and borrowings is USD 103,341 thousand at the reporting date (2017: USD 143,826 thousand).

Taking into account the effect of interest rate swaps, approximately 81% of the Group's borrowings (excluding financial leases and including the related party loan) are at a fixed rate of interest (December 31, 2017: 79%). The fair value disclosures for loans and borrowings exclude the effects of the separately at fair value accounted interest rate swaps. Refer to note 10.

Bank loans and overdrafts of USD 62,846 thousand (2017: USD 101,036 thousand) are secured by charges on plant and machinery and land (see note 7.1).

The X-FAB Sarawak redeemable preference shares represent the discounted carrying amount of a USD 50,000 thousand debt investment held by Sarawak Technologies Holding Sdn. Bhd. which is due for repayment in 2030. The redeemable preference shares confer the holder the right to receive a cumulative preference dividend of 2% to the extent that X-FAB Sarawak has sufficient net profits after taxation available for distribution for the relevant financial year including retained profits and distributable reserves brought forward. The cumulative preference dividend shall be paid before and in priority to any payment of dividends on ordinary shares to other shareholders of X-FAB Sarawak. The total amount accrued for preference dividends amounts to USD 0 thousand at December 31, 2018 (December 31, 2017: USD 0 thousand). Cumulative preference dividends of USD 1,000 thousand (2017: USD 3,095 thousand) were paid in 2018. The yearly accrued preference dividend is included within interest expenses. The charge to interest expense amounted to USD 1,000 thousand in 2018 and 2017.

The USD 50,000 thousand due for repayment in 2030 is carried at a discounted value, discounted at an interest rate of 4.12%. The discount rate was calculated at the date of the initial recognition of the liability, taking into account a weighted average risk-free rate of United States treasury bills with a corresponding maturity and an additional spread to reflect the risk premium that market participants would require based on an average credit

spread for BBB-rated debt instruments with a corresponding maturity. The charge to interest expense on this debt from the unwinding of the liability amounted to USD 1,229 thousand in 2018 (2017: USD 1,180 thousand).

The amount included in interest expense for the preference shares is USD 2,229 thousand (2017: USD 2,280 thousand).

In 2016 and in earlier years the Group entered into various sale and leaseback transactions under which machinery were sold at book value and leased back. The gross presentation in the disclosures was applied to disclose the proceeds and carrying amounts which were subject to these sale and leaseback transactions. The assets were not derecognized. The arrangements run until 2021 and carry interest rates between 0.6 and 9.6%. The contractual arrangements include purchase options at a price that is lower than the fair value of the assets and the lease term is for the major part of the economic life. Accordingly, these arrangements are classified as finance leases. Finance leases reported under current accounting standards will continue to be classified as leases from January 1, 2019 with the implementation of the new accounting standard IFRS 16 Leases.
The future minimum lease payments due under finance lease arrangements are as follows:

in thousands of U.S. dollars	2018		2017	
	Minimum leasing payment	Present value	Minimum leasing payment	Present value
2019	2,235	2,176		
2020-2022	2,358	2,324		
2018			2,582	2,467
2019-2022			4,909	4,816
Total	**4,593**	**4,500**	**7,491**	**7,283**
Interest	(93)	(93)	(208)	(208)
Liability	**4,500**	**4,407**	**7,283**	**7,075**

Contractual maturities
The contractual maturities of the Group's non-derivative financial liabilities (including finance lease liabilities) at December 31, 2018 and 2017 are shown in the table below. The amounts presented in the table are gross and undiscounted:

in thousands of U.S. dollars	2018	2017
2018		37,799
2019	37,762	39,550
2020	23,434	24,531
2021	12,240	12,805
2030	50,000	50,000
Total	**123,436**	**164,685**

The contractual maturities of the Group's derivative financial instruments with negative fair values will result in cash outflows in 2019.

The Group is exposed to a liquidity risk in that the maturity of bank loan agreements, which are presented based on the contractual payment obligations, could be brought forward should the Group fail to comply with its contractual obligations under the bank loan agreements.

7.11 Other non-current liabilities
Other non-current liabilities mainly comprise defined pension obligations and deferred rental income.
Other non-current liabilities include an amount of USD 7,360 thousand at December 31, 2018 (December 31, 2017: USD 8,082 thousand) representing the net defined benefit obligations under a long-service retirement lump-sum payment scheme at the Group's subsidiary X-FAB France. Additionally, USD 353

thousand (December 31, 2017: USD 241 thousand) of defined benefit obligations relating to this plan were recorded as other current liabilities. The net defined benefit obligation consists of defined benefit obligations under the scheme of USD 11,325 thousand (December 31, 2017: USD 12,270 thousand) less plan assets recorded at their fair values of USD 3,612 thousand (December 31, 2017: USD 3,948 thousand). Under this scheme, X-FAB France awards its employees a lump-sum payment on reaching retirement age of 65 (for management employees) and 62 (for other employees). The payment is dependent on the final salary of the employee and the length of time the employee has been employed by X-FAB France. Employees are not required to contribute to the plan. The liability recognized for the future defined benefit obligation under this scheme is presented net of the funding plan assets which are "ring fenced" to meet obligations under the scheme. The plan assets at December 31, 2018 consist of investments in a fund that is managed by a financial institution of which the underlying assets relate to long-term bonds with capital guarantees of USD 1,829 thousand at December 31, 2018 (December 31, 2017: USD 1,866 thousand) and equity savings plans with a value of USD 1,782 thousand at December 31, 2018 (December 31, 2017: USD 2,082 thousand).

in thousands of U.S. dollars	DBO	Fair value of plan assets	Net defined benefit liability
January 1, 2018	**12,270**	**(3,948)**	**8,322**
Included in profit or loss:			
Current service cost	584	-	584
Past service credit	(1,342)	-	(1,342)
Currency effects from conversion into USD	(520)	166	(354)
Included in OCI:			
Return on plan assets	-	170	170
Actuarial losses	333	-	333
Other:			
Contributions paid by the employer	-	-	-
Benefits paid	-	-	-
December 31, 2018	**11,325**	**(3,612)**	**7,713**
January 1, 2017	**10,489**	**(3,125)**	**7,364**
Included in profit or loss:			
Current service cost	425	-	425
Net interest on the net defined liability	166	-	166
Services cost paid to the current and past periods			
Currency effects from conversion into USD	1,418	(423)	995
Included in OCI:			
Return on plan assets	-	(400)	(400)
Actuarial losses	498	-	498
Other:			
Contributions paid by the employer	-	-	-
Benefits paid	(726)	-	(726)
December 31, 2017	**12,270**	**(3,948)**	**8,322**

The Group expects to pay contributions of USD 352 thousand to the funding plan in 2019.

The primary assumptions made in calculating the defined benefit obligation were as follows:

in thousands of U.S. dollars	2018	2017
Discount rate	1.50%	1.20%
Employee turnover	5.00%	5.00%
Social security costs	47.00%	47.00%

The discount rate used is calculated by reference to marked yields on high quality corporate bonds. Future salary growth is assumed to be 0.5% lower than inflation (December 31, 2017: 0.5% lower). Assumptions regarding future mortality have been based on published statistics and mortality tables.

Reasonably possible changes at the reporting date to one of the actuarial assumptions, holding other assumptions constant, would have affected the defined benefit obligation by the amounts shown below:

in thousands of U.S. dollars	Increase at December 31, 2018	Decrease at December 31, 2018	Increase at December 31, 2017	Decrease at December 31, 2017
Discount rate (+0.25% movement)	-	206	-	192
Future salary growth (+0.25% movement)	219	-	200	-

The defined benefit obligation is not materially sensitive to a reasonable potential change in the assumed mortality rate.

7.12 Trade payables and other current liabilities

Trade payables are non-interest bearing and are normally settled on 60-day terms.

Other current liabilities comprise the following:

in thousands of U.S. dollars	2018	2017
Accrued liabilities	**22,387**	**15,771**
For invoices not yet received	20,726	13,357
Repayment of electricity cost discounts	10	896
Royalties	350	132
Sales commission	317	394
Staff association	549	695
Other	435	297
Advances received	6,495	6,240
Derivatives	317	536
Deferred income	1,171	919
Employee-related liabilities	**18,725**	**19,144**
Wages	2,239	2,019
Earned holiday entitlement, incentives	8,461	10,520
Payroll taxes	3,770	2,533
Social security costs	4,255	4,072
Other taxes	-	1,391
Other	44	951
Total	**49,139**	**44,952**

7.13 Provisions

Provisions comprise the following:

in thousands of U.S. dollars	2018	2017
Current provisions	3,206	2,914
Non-current provisions	86	87
Total	**3,292**	**3,001**

Current provisions primarily relate to warranty provisions. Warranty provisions are estimated based on the Group's experience of past claim rates and knowledge of current claims together with an assessment of rectification costs. Non-current provisions refer to anniversary bonuses for employees accounted for in accordance with IAS 19, which include estimates of future staff turnover, based on the Group's experience of staff turnover rates in recent years.

The movement on provisions during the year was as follows:

in thousands of U.S. dollars	Warranty provisions	Employee provisions	Total
January 1, 2018	**2,839**	**162**	**3,001**
Provided for	1,186	136	1,322
Utilized	(536)	(96)	(632)
Released	(334)	(30)	(364)
Effect of changes in exchange rates	(30)	(7)	(37)
December 31, 2018	**3,125**	**165**	**3,290**

in thousands of U.S. dollars	Warranty provisions	Employee provisions	Total
January 1, 2017	**1,562**	**133**	**1,695**
Provided for	2,250	14	2,264
Utilized	(728)	(3)	(731)
Released	(290)	-	(290)
Reclassification	-	-	-
Effect of changes in exchange rates	45	18	63
December 31, 2017	**2,839**	**162**	**3,001**

8 Notes to the statement of cash flows

The change in trade payables in working capital excludes amounts of obligations for additions to property, plant, and equipment, as payments for additions to fixed assets are recorded in the statement of cash flows when payment is made.

The Group paid a preference dividend in the amount of USD 1,000 thousand (2017: USD 3,095 thousand for the years 2013 through 2017) to Sarawak Technologies Holding Sdn. Bhd. Refer to note 7.10.

Non-cash transactions mainly include effects from exchange rate differences and increases of provisions. Regarding the exchange rate differences refer to note 7.10.

The Group entered into no sale and leaseback transactions for property, plant, and equipment in 2018 or 2017. Cash flows include payments for capital and interest on sale and leaseback transactions accounted for as finance leases entered into in 2016 and earlier years.

9 Segment reporting

Operating segment

The Group manages its CMOS and MEMS operations as one single operating segment. Operating decisions are taken on a product and technology level by the President and Chief Executive Officer, who is assisted by the parent company's management team. Accordingly, X-FAB has identified its President and CEO as its chief operating decision maker for the purposes of defining segments in accordance with IFRS 8. No separate operating results for the CMOS and MEMS operations are used by the chief operating decision maker to manage X-FAB's operations, assess performance, or make resource allocation decisions. As a result, X-FAB has determined that its operations constitute one single segment.

Geographic concentrations

The following table shows an analysis of revenue (based on the customer's billing location) and non-current assets by geographic area for the reporting period.

Revenue by geographic area:

in thousands of U.S. dollars	2018	2017
Europe	**349,380**	**329,364**
Germany	55,384	60,266
France	9,216	7,270
United Kingdom	26,070	29,476
Belgium	222,085	203,271
Austria	15,398	9,011
Sweden	7,311	8,534
Switzerland	5,728	4,743
Denmark	2,479	1,311
Finland	1,119	554
Other	4,590	4,928
Asia	**113,907**	**115,232**
Malaysia	18,756	13,557
Japan	13,816	12,730
China	22,854	41,234
Korea	10,168	10,594
Hong Kong	2,225	1,208
Thailand	9,782	11,144
Singapore	29,133	18,084
Taiwan	2,614	3,525
New Zealand	1,283	740
Other	3,276	2,416
United States of America	**123,446**	**136,255**
Rest of the world	**1,166**	**836**
Total	**587,899**	**581,687**

Non-current assets by geographic area:

in thousands of U.S. dollars	2018	2017
Germany	158,909	145,951
Malaysia	162,531	163,889
United States of America	39,860	28,045
France	55,062	38,391
Total	**416,362**	**376,276**

The increase in 2018 relates to the Group's investments into equipment less depreciation.

Significant customers
The Group has two (2017: two) customers whose revenues exceeded 10% of the Group's consolidated external revenues. The total revenue from these customers amounted to USD 222,106 thousand and USD 80,795 thousand respectively in 2018 (2017: USD 204,074 thousand and USD 102,060 thousand).

10 Financial instruments – fair values and risk management

Accounting classifications and fair values
The following tables show the carrying amounts and fair values of financial assets and financial liabilities measured at fair value through profit or loss and measured at amortized cost, respectively, including their levels in the fair value hierarchy. The table does not include fair value information for financial assets and financial liabilities measured at amortized cost if the carrying amount is a reasonable approximation of fair value. Comparative info has not been restated to reflect the new requirements.

December 31, 2018					
in thousands of U.S. dollars	Carrying amount	Fair value			
	Total	Level 1	Level 2	Level 3	Total
Financial assets measured at FVTPL					
Investments	381	381	-	-	381
Currency hedge contracts	-	-	-	-	-
Financial assets measured at amortized cost					
Trade and other receivables	71,378				
Cash and cash equivalents	242,768				
Financial liabilities measured at FVTPL					
Interest rate swaps	(317)	-	(317)	-	(317)
Financial liabilities measured at amortized cost					
Trade payables	(45,889)				
Bank loans, overdrafts, and finance lease	(73,436)	-	(72,635)	-	(72,635)
Related party loans	(30,523)	-	(30,706)	-	(30,706)
December 31, 2017					
Financial assets measured at FVTPL					
Investments	558	558	-	-	558
Currency hedge contracts	4,096	-	4,096	-	4,096
Financial assets measured at amortized cost					
Trade and other receivables	82,008				
Cash and cash equivalents	319,235				
Financial liabilities measured at FVTPL					
Interest rate swaps	(536)	-	(536)	-	(536)
Currency hedge contracts	-	-	-	-	-
Financial liabilities measured at amortized cost					
Trade payables	(36,684)				
Bank loans, overdrafts, and finance lease	(114,684)	-	(113,725)	-	(113,725)
Related party loans	(29,293)	-	(30,101)	-	(30,101)

Financial instruments measured at amortized cost

The carrying amount of cash and cash equivalents, bank overdrafts, trade and other receivables, and trade payables approximates their fair value due to the short-term maturity of these financial instruments.

The fair value of the Group's non-current liabilities is based on their present values calculated by discounting future cash flows at current rates of interest available for debt with the same maturity profile.

The Group's principal financial instruments not carried at fair value are cash and cash equivalents, trade receivables, other current assets, other non-current assets, trade and other payables, bank overdrafts, and long-term borrowings.

Financial instruments measured at fair value

Financial assets and liabilities accounted for at fair value through profit or loss

The Group's financial instruments measured at fair value primarily consist of forward foreign exchange contracts and interest rate swaps, as well as an equity investment in a company listed on the NASDAQ stock exchange. The fair value of the forward foreign exchange contracts and interest rate swaps is determined by calculating the present value of the contractually agreed payments at the statement of financial position date by reference to current interest rates and exchange rates. The fair values are confirmed to the Group by the financial institutions through which the Group has entered into these contracts. The fair value of the equity investment in a company listed on the NASDAQ stock exchange is based on the price quoted for those shares at the reporting date. The changes in the fair value of this investment are recorded in profit or loss, although the investment is not held for trading purposes, as the Group did not opt to present fair value changes in other comprehensive income.

The fair values of derivatives are calculated using discounting techniques applied to expected cash flows arising on the respective instruments (level 2 fair value measurements). The changes in the estimated fair value of derivatives are recognized in profit or loss. There have been no transfers of assets or liabilities between levels of the fair value hierarchy in the current or previous year.

The fair values of derivatives comprise the following:

in thousands of U.S. dollars	2018	2017
Outstanding interest hedge contracts	(317)	(536)
Outstanding currency hedge contracts	-	4,096
Total	**(317)**	**3,560**

The following table presents the aggregate nominal amounts of the Group's outstanding derivative financial instruments:

in thousands of U.S. dollars	2018	2017
Outstanding interest hedge contracts, maturing within one year	6,949	-
Outstanding interest hedge contracts, maturing after more than one year	-	8,464
Outstanding currency hedge contracts, maturing within one year	-	71,827
Outstanding currency hedge contracts, maturing after more than one year	-	53,130

The USD/EUR exchange forward contracts as well as the hedging contracts in respect of the Malaysian ringgit were terminated in first half of 2018.

Derivatives entered into for hedging purposes are recorded at fair value and changes in the fair value of these instruments are recorded in profit or loss. Hedge accounting is not applied.

Financial assets and liabilities accounted for at fair value through other comprehensive income

The Group had no financial assets and liabilities accounted for at fair value through other comprehensive income in the current or previous financial year.

Management of risks arising from financial instruments

The X-FAB SE Group's principal financial liabilities, other than its derivatives, comprise bank loans and bank overdrafts, and trade payables. The main purpose of these financial liabilities is to finance the Group's operations. The Group has various financial assets such as trade receivables and cash and short-term deposits, which arise directly from its operations.

Financial assets in form of free short-term cash available are placed on deposit with banks with a high credit rating. Deliveries made by the Group are subject to the reservation of proprietary rights until the customer has paid for the goods. Generally, further security is not obtained.

From time to time the Group also enters into derivative transactions. The purpose is to manage the foreign exchange risks and interest rate arising from the Group's sources of finance where the risks of financial loss or the liquidity risk appears excessive. While these transactions are classified as "FVTPL" for accounting purposes because the Group does not formally account for them using hedge accounting techniques, they are exclusively entered into to reduce the risk of contractually agreed or highly probable transactions.

The main risks arising from Group's financial instruments are market risks (interest rate and foreign currency risks), credit risk, and liquidity risk. The Board of Directors reviews and agrees policies for managing each of these risks. The primary objectives in managing these risks is to minimize the risk of financial loss and the risk of any interference with the Group's ability to pursue its commercial objectives. The policies followed in respect of each risk are summarized below.

Interest rate risk

The X-FAB SE Group exposure to the risk of changes in market interest rates relates primarily to the Group's long-term debt obligations with floating interest rates.

The Group's policy is to manage its interest cost using a mix of fixed and variable rate debts. To manage this, the Group enters into interest rate swaps, in which the Group agrees to exchange, at specified intervals, the difference between fixed and variable rate interest amounts calculated by reference to an agreed-upon notional principal amount. At December 31, 2018, after taking into account the effect of interest rate swaps, about 81% of the Group's borrowings (excluding financial leases) are at a fixed rate of interest (December 31, 2017: 79%). Accordingly, the Group's exposure to interest rate risk is limited.

Foreign currency risk

The Group's statement of financial position can be affected by changes in the dollar exchange rates, in particular movements against the euro (EUR) and the Malaysian ringgit (MYR). This risk mainly relates to transactions in foreign currency.

The following table provides an analysis of monetary assets and liabilities by currency denomination, expressed in thousands of USD:

Assets and liabilities denominated in EUR:

in thousands of U.S. dollars	2018	2017
Assets		
Trade accounts receivable	11,663	8,708
Other assets	36,838	26,118
Cash	62,589	198,336
Liabilities		
Trade payables	13,225	15,451
Loans and borrowings	73,436	114,684
Other liabilities and provisions	26,683	30,126

Assets and liabilities denominated in MYR:

in thousands of U.S. dollars	2018	2017
Assets		
Trade accounts receivable	220	482
Other assets	117	198
Cash	96,327	51,079
Liabilities		
Trade payables	1,119	2,246
Other liabilities and provisions	15,100	6,554

The Group's policy is to manage selected foreign currency exchange risk by entering into forward rate currency purchase or sale transactions (currency forwards) for specific amounts of foreign currencies in anticipation of transactions which are contractually fixed or highly probable.

The following exchange rates were used in preparing the consolidated financial statements:

	2018	2017
USD/EUR		
Closing rate	0.872	0.834
Average rate	0.846	0.886
USD/MYR		
Closing rate	4.152	4.047
Average rate	4.033	4.301

The Group also has currency exposures arising from sales or purchases made when operating units undertake transactions in currencies other than their functional currencies.

Approximately 18.7% (2017: 16.4%) of the Group's sales are denominated in currencies other than the functional currency of the operating unit making the sales.

The following table demonstrates the sensitivity to changes in fair value of monetary assets and liabilities on the Group's profit before tax to reasonably possible changes in the USD/EUR and USD/MYR exchange rates, with all other variables held constant and excluding effects of foreign exchange related derivatives held. We have also assessed that the sensitivity to changes in fair value of monetary assets and liabilities to profit before taxes is a good approximation of the effect on equity of the Group as the associated tax effect would not be significant.

USD/EUR	Increase/ decrease in EUR rate	Effect on profit before tax
2018	5%	-115
	-5%	115
2017	5%	3,642
	-5%	-3,642

USD/MYR	Increase/ decrease in MYR rate	Effect on profit before tax
2018	20%	15,883
	-20%	-15,883
2017	20%	8,592
	-20%	-8,592

The Group believes that a reasonably possible change of other exchange rates, with all other variables held constant, will not have a significant effect on the Group's profit before tax and on the Group's equity.

The currency risk from translating foreign entities with a functional currency that is different from the presentation currency can considered to be immaterial as it relates to non-significant entities.

Credit risk

The Group's primary risk credit concentrations affecting financial assets are in respect of trade receivables (described in note 7.4), balances with related parties (note 11), and balances and short-term deposits at banks (note 7.6).

The Group only trades with recognized, creditworthy third parties. It is the Group's policy that all customers who wish to trade on credit terms are subject to credit verification procedures. In addition, receivables balances are monitored on an ongoing basis to ensure that the Group is not exposed significant risk of credit loss. The maximum exposure is represented by the carrying amounts disclosed in

notes 7.4 and 7.5. With respect to credit risk arising from financial assets, including cash and cash equivalents, the Group's maximum exposure to credit risk arising from default of the counterparty is equal to their carrying amounts in the statement of financial position.

The Group has not recorded any expected credit losses for cash and cash equivalents as it considers that any measurement of the twelve month expected loss would be an insignificant amount given the good credit rating of the respective banks.

The counterparties for the Group's derivatives are banks with a high credit rating.

Liquidity risk

The Group monitors its risk to a shortage of funds and of difficulties in meeting obligations associated with financial liabilities. The Group's objective is to maintain a balance between continuity of funding and flexibility through the use of bank loans, bank overdrafts, and other financial instruments. Based on the positive cash flow projections and the excess of current assets over current liabilities there is no significant liquidity risk at December 31, 2018. The expected cash flows from trade and other receivables maturing within two months total USD 71,378 thousand (December 31, 2017: USD 82,008 thousand). Trade accounts payables are due within the next twelve months. An analysis of the maturity of financial liabilities and available credit lines is presented in note 7.10.

Capital management

The primary objective of the Group's capital management is to ensure that it maintains a strong credit rating and healthy capital ratios in order to support its business and maximize shareholder value. The Group manages its capital structure (consisting of equity and borrowings) and makes adjustments to it in the light of changes in economic conditions. To maintain or adjust the capital structure, the Group may choose to take measures such as making payments to or adjusting dividend payments made to shareholders, returning capital to shareholders, or raising new capital by issuing new shares. No change was made to the Group's capital management objectives, policies or processes during the years ended December 31, 2018 and December 31, 2017.

The X-FAB SE Group's bank loan agreements do not impose externally imposed capital requirements requiring the maintenance of specific equity and free cash flow ratios. The credit agreements contain certain other covenants typical for such borrowing arrangements which impose a number of requirements on the relevant obligors, including, among other things, a negative pledge clause, obligations to provide certain information relating to the financial condition of the obligor and change of control provisions. In addition, the Company has entered into undertakings under the terms of certain credit agreements to maintain its existing equity percentage in the share capital and related percentage of voting rights of its respective subsidiaries.

11 Transactions with related parties

Transactions with shareholders and their subsidiaries

As part of its normal business activities, X-FAB SE Group undertakes transactions with entities in the XTRION group, a group of companies controlled by XTRION NV, the ultimate parent company and the largest shareholder of X-FAB SE. These include the purchase of certain work in process and services, as well as the sale of products and provision of services to these companies. XTRION NV is also the parent company of Melexis NV, which develops, designs, and sells integrated circuits to clients such as the automotive industry. The main wafer suppliers for Melexis group are X-FAB SE's subsidiaries. Melexis group also provides final test services as well as design support to X-FAB SE subsidiaries. Refer also to corporate governace statement.

The tables below show the balances with shareholders and their subsidiaries included in the statement of financial position.

in thousands of U.S. dollars	2018	2017
Trade accounts receivable due from Melexis group companies	15,538	26,973
Trade accounts receivable due from Anvo-Systems	1,409	1,443
Trade accounts receivable due from M-MOS group companies	5,423	2,224
Trade accounts receivable due from Xtrion	9	-
Trade accounts receivable due from X-Celeprint	-	3
Total	**22,379**	**19,377**

in thousands of U.S. dollars	2018	2017
Financial liabilities due to Sarawak Technologies Holding Sdn. Bhd.	30,523	29,293
Trade accounts payable due to Melexis group companies	119	306
Trade accounts payable due to XTRION	11	2
Trade accounts payable due to M-MOS	-	(6)
Trade accounts payable due to Sensinnovat	122	243
Trade accounts payable due to X-Celeprint	-	37
Other	36	22
Total	**30,811**	**31,392**

Receivables from related parties relate to trade receivables, do not carry interest, and are payable on normal credit terms.

Further information on the financial liability payable to Sarawak Technologies Holding Sdn. Bhd., a Malaysian government agency, is provided in note 7.10.

Sales made to companies of the XTRION group primarily include the supply of PCM-tested wafers and NRE on the basis of wafer supply agreements made between the parties.

Other income results from the provision of technical facilities supplies, utilities, property rentals, and services provided. Services provided include information technology, personnel, and legal support services. For services provided, charges are made in relation to the costs incurred based on an agreed formula which considers the use of facilities, employee time spent, and specific transaction details. Interest income and expenses arose in connection with loan arrangements.

Sales and other income comprise the following:

in thousands of U.S. dollars	2018	2017
Sales to Melexis group companies	222,106	204,074
Sales to M-MOS group companies	11,855	10,785
Sales to Anvo-Systems	131	254
Sales to MicroGen	-	214
Other income from Sarawak Technologies Holding Sdn. Bhd.	-	940
Other income from Melexis group companies	4,122	3,330
Other income from XTRION	9	18
Other income from M-MOS	37	-
Total	**238,260**	**219,615**

Purchases, expenses, and other transactions recorded with shareholders and their subsidiaries were as follows:

in thousands of U.S. dollars	2018	2017
Services provided by Melexis group companies	1,017	553
Services/purchases provided by M-MOS group companies	181	-
Services provided by X-Celeprint	148	84
Services purchased from Sensinnovat	420	410
Services purchased from ESA	189	41
Interest expenses Melexis	-	109
Warranty cost Melexis group	972	832
Interest from loan from Sarawak Technologies Holding Sdn. Bhd.	2,230	2,180
Total	**5,157**	**4,209**

Services purchased from member companies of the XTRION group primarily included wafer test and final test services. Outstanding

balances from sales and purchases of goods and from receiving and rendering of services at the reporting date are unsecured, interest free, and settled in cash. There have been no guarantees provided or received for any related party receivables or payables. The X-FAB SE Group has not recorded any impairment of receivables relating to amounts owed by related parties in the years 2018 or 2017 (refer to note 7.4).

Remuneration of persons with key management positions

in thousands of U.S. dollars	2018	2017
Short-term employee benefits	1,662	1,824
Short-term employee benefits for members of management that are not on the payroll of the Company (CEO and CFO)	503	430
Total	**2,165**	**2,254**

The persons with key management positions as referred above as of December 31, 2018 include the Group's CEO, COO, CTO, CFO, the CEO of X-FAB Dresden, the CEO of X-FAB Sarawak, the CEO of X-FAB Texas, and the CEO of X-FAB France.

The Group has made contributions to defined contribution pension plans for the benefit of persons with key management positions totaling USD 185 thousand (2017: USD 63 thousand). Defined contribution plans comprise (mainly) statutory contributions to be made by employers to state-based defined contribution plans. In connection with these plans there are no minimum guarantees by the employer. The defined contribution is based on a fixed percentage of the (capped) gross salary determined by state laws.

12 Other disclosures

12.1 Commitments and contingencies

Purchase commitments

Purchase commitments comprise the following at December 31:

in thousands of U.S. dollars	2018	2017
Property, plant, and equipment	43,097	36,399
Intangible assets	584	617
Material and services	95,870	34,848
Total	**139,551**	**71,864**

Purchase commitments mainly refer to purchase orders placed for investments in technical machinery. In addition to the presented figures above, the Group is committed to invest USD 120 million (EUR 100 million) in the Corbeil-Essonnes site over a ten year period from October 1, 2016, the date of acquisition. USD 67 million (EUR 57 million) of this obligation remains outstanding at December 31, 2018 (December 31, 2017: USD 102 million).

Purchase commitments for material at December 31, 2018 include commitments of X-FAB Texas for silicon carbide (SiC) wafers needed in 2019 and beyond totaling USD 86 million (December 31, 2017: USD 25 million).

Operating leases

The tables below show the amount of minimum lease commitments under operating leases and similar rental arrangements as of December 31:

in thousands of U.S. dollars	2018	2017
2018		**6,780**
2019-2023		6,737
Thereafter		15
2019	**6,099**	
2020-2024	12,080	
Thereafter	2,850	
Total	**21,029**	**13,532**

The increase of expenses under operating leases in 2020-2024 is caused by the renewal of lease contracts. Expenses under operating leases totaled USD 6,871 thousand (2017: USD 4,822 thousand). Assets held under operating lease agreements include facility equipment (gas tanks) and leased vehicles and office equipment.

Investment grants and subsidies

Various Group entities receive grants and subsidies in connection with the acquisition of certain qualifying assets (asset-related grants and subsidies) and subsidies to offset research and development costs (income-related grants). No material amounts of other government assistance are received.

Specifically, X-FAB GmbH, XMF, and X-FAB Dresden receive grants and subsidies in connection with the acquisition of certain qualifying assets (asset-related grants and subsidies). The grant rules require that the assets on which investment grants have been received are retained for a period of five years (the subsidy rules, which largely apply to the same assets, have a similar three-year retention requirement), and that specified employee levels are maintained at specific locations. If it is not possible to fulfil these conditions, the grants and subsidies may be partially repayable.

X-FAB Sarawak was awarded a research and development incentive grant in an aggregate amount of a maximum of USD 72.0 million to finance research and development activities in the State of Sarawak (income-related grant). To date, X-FAB Sarawak has received USD 25 million under this agreement (until December 31, 2017: USD 19.2 million), which has been accounted for corresponding to the research and development expenses incurred. In 2018 X-FAB Sarawak has recognized a grant receivable for USD 4.8 million (2017: USD 4.8 million) as reasonable assurance has been obtained that X-FAB has complied with the grant conditions and the cash will be received (refer to note 7.5). X-FAB has not recognized a receivable for the remainder of the USD 72 million, relating to the period after 2018, as the recognition criteria (reasonable assurance) are not deemed to be met at this moment. X-FAB Sarawak must comply with the terms of the agreement, in particular to undertake the research and development activities as planned. This grant will be distributed in annual instalments of up to USD 4.8 million each year until 2027 provided that X-FAB complies with the terms of the agreement.

12.2 Unresolved legal disputes and claims

X-FAB SE Group is not involved in court or tribunal proceedings which could have a significant financial impact on the Group, and management is not aware of the threat of any such proceedings.

12.3 Employees

The average number of employees employed by the Group during the year was as follows:

	2018	2017
Production	3,437	3,258
Research and development	310	281
Sales, marketing, and administration	265	256
Trainees	69	65
Total	**4,081**	**3,860**

The total number of employees employed by the Group at December 31 was as follows:

	2018	2017
Production	3,509	3,336
Research and development	319	291
Sales, marketing, and administration	263	270
Trainees	83	68
Total	**4,174**	**3,965**

12.4 List of shareholdings

Entity	Place of incorporation	Principal activities	Shareholding %
X-FAB Silicon Foundries SE	Tessenderlo, Belgium	Holding company	
X-FAB Semiconductor Foundries GmbH	Erfurt, Germany	Wafer manufacturing	100.00%
X-FAB Dresden GmbH & Co. KG	Dresden, Germany	Wafer manufacturing	100.00%
X-FAB Dresden Verwaltungs-GmbH	Dresden, Germany	No activity	100.00%
X-FAB Texas Inc.	Texas, USA	Wafer manufacturing	100.00%
X-FAB Sarawak Sdn. Bhd.	Kuching, Malaysia	Wafer manufacturing	100.00%
X-FAB France SAS	Corbeil-Essonnes, France	Wafer manufacturing	100.00%
X-FAB Japan KK	Yokohama, Japan	Trading company	100.00%
X-FAB MEMS Foundry GmbH	Erfurt, Germany	Wafer manufacturing	100.00%
OOO Microdesign	Voronesh, Russia	R&D, Design	100.00%
X-FAB MEMS Foundry Itzehoe GmbH	Itzehoe, Germany	Wafer manufacturing	100.00%
X-FAB Dresden Grundstücks-Vermietungs-gesellschaft mbH & Co. KG	Dresden, Germany	Real estate	94.90%

12.5 Consolidated financial statements of the ultimate parent

The ultimate parent of the Company is XTRION NV. Although XTRION NV does not hold a majority of the Company's shares, it is the Company's largest shareholder and has a controlling interest given its dominant shareholding position relative to the size and dispersion of other shareholders.

The financial statements of the companies included in the Group are also included in the consolidated financial statements of XTRION NV, the Company's ultimate parent. These can be obtained on request from XTRION NV, Transportstraat 1, 3980 Tessenderlo, Belgium.

12.6 Auditor and auditor's remuneration

During the general Shareholders' Meeting on May 16, 2017, KPMG Bedrijfsrevisoren BV CVBA Belgium was reappointed as the parent company's auditor for the years 2017, 2018, and 2019.

The auditor's remuneration for the period was as follows:

in thousands of U.S. dollars	2018	2017
Audit cost		
KPMG	345	349
Other audit firms	175	150
Other services		
KPMG	41	562
Total	**561**	**1,061**

Other audit-related services mainly related to attestation and assurance services in connection with the Company's initial public offering. Refer to note 7.7.

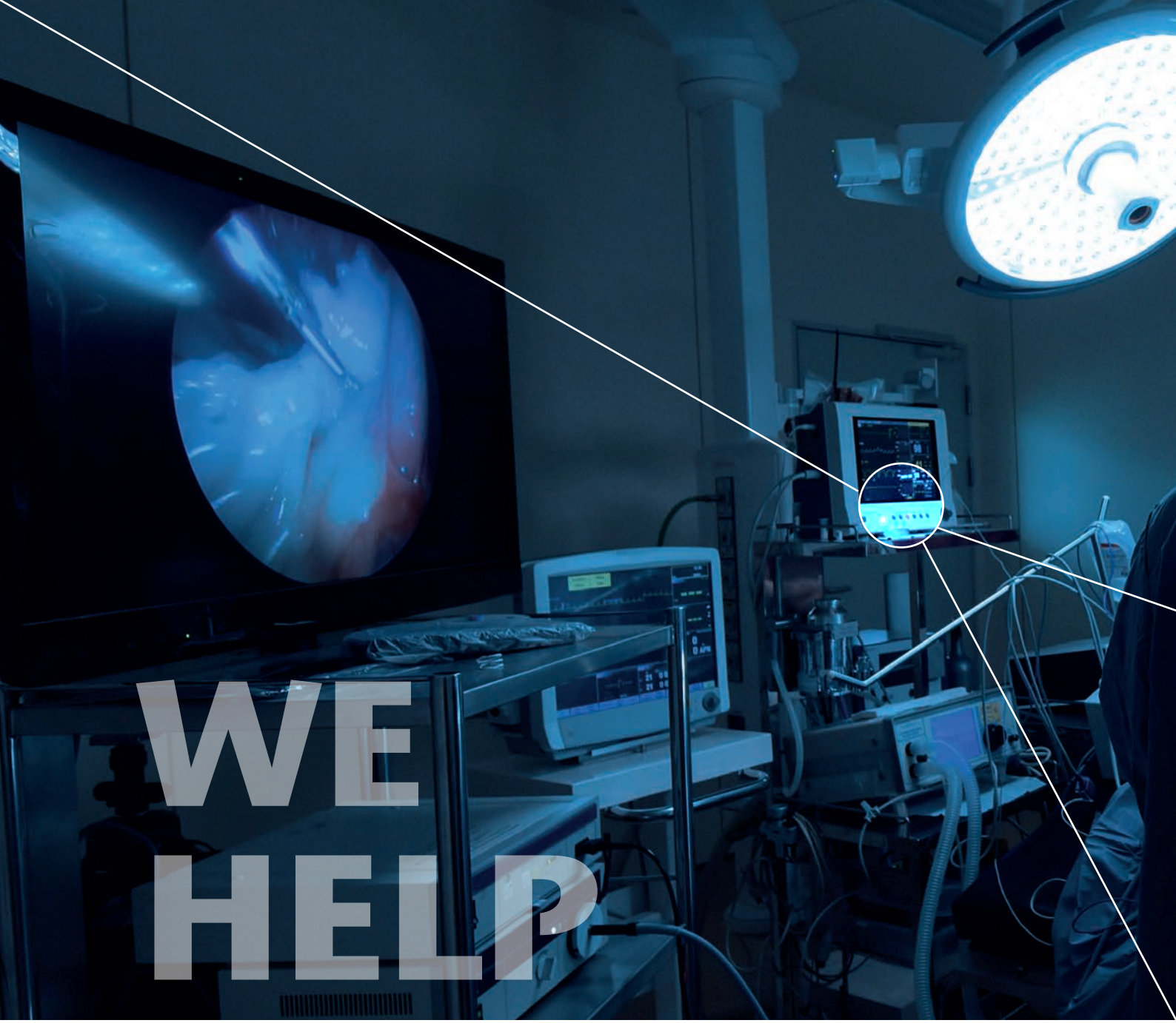
13 Events after the reporting period

There have been no reportable events subsequent to the reporting date.

Tessenderlo, March 19, 2019

Managing Director, CEO

Sensinnovat BVBA
Represented by Rudi De Winter
CEO



TO SAVE LIVES

Semiconductors for medical markets

X-FAB

technologies
for our future.

6. CORPORATE SOCIAL RESPONSIBILITY AT X-FAB

6.1 Company ethics

Introduction

X-FAB is fully committed to being the foundry of choice for the analog world by focusing on innovative solutions and on the quality of products as well as services. X-FAB's manufacturing excellence meets customer expectations and enables long-lasting success for all stakeholders. To exceed the expectations of its customers, X-FAB practices a quality management system certified according to IATF 16949:2016 and ISO 9001:2015.

ISO9001 and IATF16949

ISO9001:2015 specifies the requirements for a quality management system. It helps organizations to ensure they meet the needs of customers and other stakeholders while also respecting statutory and regulatory requirements related to a product or service. IATF16949:2016 as a new automotive standard for quality management systems is implemented as a supplement to and in conjunction with ISO9001:2015. It specifies the requirements for establishing, implementing, maintaining, and continually improving a quality management system in the automotive supply chain.

Furthermore, X-FAB assumes responsibility by seeking an appropriate balance of interests between the consequences of required business decisions and its activities on economic, technological, social, and environmental levels. To save natural resources and to support the global reduction of CO_2 emissions, X-FAB operates an environmental, health and safety, and energy management system that is certified according to ISO 14001:2015. Additionally, X-FAB is a member of the German Electrical and Electronic Manufacturers association (ZVEI) and has signed the ZVEI Code of Conduct in 2014.

ZVEI

The ZVEI ("Zentralverband Elektrotechnik- und Elektronikindustrie e.V.") is the representative of the economic, technological, and environmental interests of the German electrical industry.
The ZVEI has drawn up a Code of Conduct of its own, governing corporate social responsibility. The ZVEI Code of Conduct takes internationally established benchmarks as its reference and covers all relevant subjects.

X-FAB, as one of the largest specialty foundry groups, is aware of the social responsibility it has connected to the Company's global business activities. X-FAB's company ethics are based on universal ethical values and principles, especially integrity, honesty, respect for human dignity, openness, and nondiscrimination comprising religion, ideology, gender, and ethnicity. X-FAB is also committed to promoting those values wherever possible and across all parts of the value chain. X-FAB unrestrictedly abides by all applicable laws and other legal requirements at all of its sites. In 2018, no noncompliance with any laws or regulations has been identified concerning the provision and use of products and services and related to environmental laws and regulations. X-FAB fosters partnerships and trustworthy interactions with supervisory authorities. Additionally, X-FAB also globally applies good company practices that enable supportive, responsible company management.

Scope and boundary

The content of this chapter documents X-FAB's environmental and social performance during the 2018 fiscal year. The environmental and social performance figures encompassed in this chapter have been prepared according to the Global Reporting Initiative Guideline (version 3.1) core option.

During the materiality analysis for X-FAB's CSR report 2018 expectations and requirements of external and internal stakeholders were evaluated. Thus, the outline of this report takes into account various topics with regards to sustainability including human rights, social commitment, healthy work environment, environmental responsibility, and supply chain. The report contains the core GRI indices as well as standard disclosures on general characteristics of X-FAB as an organization. Some figures can be found in other parts of the annual report. A table identifying the location of key figures and statements can be found on X-FAB's website. Unless otherwise specified, the disclosed information refers to the 2018 fiscal year. Where applicable, data were collected and/or measured by X-FAB or obtained from external sources, such as utility providers. Data compiled from X-FAB sites were validated using internal procedures.

In general, the provided statements and figures are valid for the entire organization. Site-specific information is indicated where applicable. The report covers all entities of X-FAB Silicon Foundries SE. Outsourced operations were excluded from the CSR report due to their insignificant share of X-FAB's overall business volume in 2018. The report scope and boundary were confirmed by the X-FAB Management Board.

Anti-corruption and bribery

X-FAB's business practices follow the principles of fair competition with particular focus on professional behavior. X-FAB respects consumer interests by abiding by regulations that protect consumers and by using appropriate sales, marketing, and information practices in accordance with the ICC International Code of Advertising Practice and the OECD Guidelines for Multinational Enterprises.

ICC International Code of Advertising Practice

The International Chamber of Commerce (ICC) establishes rules governing the conduct of business across borders. The ICC Code of Advertising Practice provides self-disciplinary rules of ethical conduct to be followed by all concerned with advertising: All advertising should be legal, decent, honest, truthful, and prepared with a due sense of social responsibility and the principles of fair competition.

OECD Guidelines for Multinational Enterprises

Founded in 1961, the Organization for Economic Co-operation and Development (OECD) fosters economic progress and stimulates world trade. It is an intergovernmental economic organization with 35 member countries. The OECD Guidelines for Multinational Enterprises are recommendations providing principles and standards for responsible business conduct comprising employment, industrial relations, human rights, environment, and taxation, among others.

In particular, X-FAB rejects corruption and bribery as stated in the relevant UN Convention against corruption from 2003, and promotes transparency, trading with integrity, responsible leadership, and company accountability.

In order to prevent corruption, X-FAB promotes increased awareness from its employees through comprehensive and repeated sessions on the company values and strict

regulations as outlined in the company handbook. These sessions are attended by all employees and emphasize the corporate values, such as integrity and respect. An Ethics and Conflict of Interest policy is available on the Company's intranet. Furthermore, anti-corruption is mentioned in the Company's rules, which are part of each employment contract. Concerns about unethical behavior are reported either via the workers' council or directly to Human Resources. In 2018 X-FAB implemented a global Whistle Blower policy which was disclosed to all employees globally.

Ethics training is provided to all employees. At the start of employment with X-FAB, each new employee receives a copy of the working regulations, which comprise policies on harassment prevention and the acceptance of gifts, and includes a definition of infractions that lead to contract termination. Actions taken in response to incidents of corruption comprise all legal actions according to the corresponding national laws. In addition to following all national laws regarding ethical and anti-corruption behavior, X-FAB does not influence politics, neither by participating in political activities nor by donating or supporting parties in elections.

Stakeholder engagement

With the first-time introduction of CSR reporting in the 2017 Annual Report, X-FAB continues to put the CSR report on a regular agenda to continuously improve the Company's overall sustainability. X-FAB's mission is to contribute to the social and economic development of the countries and regions where it conducts business and to promote volunteer activities by its employees. X-FAB thereby contributes to the well-being and long-term development of affected societies, in particular regarding working conditions, social and environmental compatibility, transparency, collaboration, and dialog. X-FAB promotes state-of-the-art technologies and their advancement through its involvement in numerous industry associations and other organizations.

Industry associations

X-FAB is a member of or otherwise related to several industry associations as well as scientific, governmental and standardization organizations including but not limited to:

A. Industry associations

- ACSIEL, Alliance Électronique (French electronics industry association)
- AENEAS – Association for European Nanoelectronics Activities
- edaCentrum (Association for Electronic Design Automation, Germany)
- ESIA – European Semiconductor Industry Association
- Förderkreis Mikroelektronik (Society for the Promotion of Microelectronics, Germany)
- IVAM Microtechnology Network, Germany
- SECA – Sarawak Electronics and Supporting Industries Companies Association, Malaysia
- SEMI, global industry association serving the manufacturing supply chain for the micro- and nano-electronics industries
- SFAM – Semiconductor Fabrication Association of Malaysia
- Silicon Saxony, Germany
- SYSTEMATIC, Paris-region cluster connecting software, digital and industry players, France
- ZVEI – Zentralverband Elektrotechnik- und Elektronikindustrie (Electrical Industry Association, Germany)

B. Scientific organizations

- Curatorship in different Fraunhofer Institutes, Germany
- IMMS Institut für Mikroelektronik- und Mechatronik-Systeme (IMMS Institute for Microelectronic and Mechatronic Systems, Germany)
- Texas Tech University, Electrical Engineering Industrial Advisory Board and Dean's Council for the College of Engineering

C. Governmental committees/organizations

- Mikroelektronik Strategiekreis (Microelectronics strategy circle, Germany)
- Silicon Germany

D. Standardization organizations

- DKE – Deutsche Kommission Elektrotechnik Elektronik Informationstechnik in DIN und VDE (German Commission for Electrical engineering, Electronics and Information Technology of DIN and VDE)

To achieve X-FAB's mission, good and effective communication with all stakeholders is essential. The following equally important stakeholders were identified: customers, employees, investors, suppliers, and local communities. Fig 6.1 shows the different channels X-FAB is using to communicate about its activities.

Stakeholder group	Communication channel
Customers	Website (xfab.com)
	Customer portal (my X-FAB)
	24/7 technical support hotline
	Customer audits
	Customer satisfaction surveys (NPS)
	Field sales engineers/inside sales/customer service
	Technical interface engineers
	Quarterly business review (QBR) with key customers
	Social media platforms (e.g. LinkedIn/Facebook/Twitter)
	Trade shows/exhibitions
Investors	Website, Investors pages (xfab.com/investors)
	Annual general meeting
	Quarterly reports
	Annual report
	Investor relations updates via email
	Social media platforms (e.g. LinkedIn/Facebook/Twitter)
Employees	Global intranet
	Employee engagement surveys (Barometer)
	X-PRESS (X-FAB's company journal)
	Global employee performance management system (Compass)
	Info sessions for managers and team leaders (CEO Talk)
	Social media platforms (e.g. Facebook/Twitter/YouTube)
Suppliers	Supplier audits and business reviews
	Supplier assessment (Supplier of the Year awards)
Communities	Industry associations
	Promotion of local sports events
	Social Media Platforms (e.g. Facebook/Twitter/YouTube)

Fig 6.1: Stakeholder engagement

6.2 Human rights and human resources

X-FAB's company ethics are based on universally held ethical values and principles, including respect for human dignity, openness and nondiscrimination according to the Code of Conduct (ZVEI). Consequently, X-FAB stands up for human rights as stated in the Charter of the United Nations, especially the protection from harassment, the prohibition of child and forced labor, the prohibition of discrimination, fair working standards and compensation, and freedom of thought, expression, association, and assembly, as well as collective bargaining.
All operations are continually monitored and reviewed regarding human rights. All of X-FAB's investments are in compliance with respective local laws. Additionally, a specific policy exists addressing the sourcing of conflict minerals. Respecting human rights is a matter of course for X-FAB, and in all employment contracts any kind of child or forced labor is prohibited. Health and safety for all employees is guaranteed. The protection from corporal punishment as well as physical, sexual, psychological, or verbal harassment and abuse is ensured. X-FAB supports disabled persons according to local laws. Any kind of discrimination is strictly prohibited. Every new employee undergoes a mandatory employee orientation and is specifically trained on human rights policies. Relevant local laws together with company handbooks are accessible to all employees on X-FAB's intranet as well as in printed form. This is implemented by the Human Resources (HR)

department, whose members are regularly trained on human rights topics in more detail. Employees are encouraged to report incidents related to human rights to the HR department or, where available, the workers council and the equal opportunities officer. A Whistle Blower policy was implemented, where incidents could be reported confidently to a third party. In the case of reported incidents, corrective actions are initiated in consultation with the HR department and in compliance with local laws. In 2018 no incidents were reported. The identity and well-being of employees who report on the violation of any law or regulation of the Company, on any activities that are against the interests of the Company, or on any matter likely to harm any other person, will be even better protected in line with a corresponding global procedure which was established in 2018.

Employee statistics

At the end of 2018, X-FAB had more than 4,000 employees worldwide at six different manufacturing sites in Europe, Asia, and the US. At all of its sites, X-FAB's recruitment policy is based on the employee's qualifications and the Company's requirements. Consequently, different requirement profiles exist in technology and operations-related positions. In order to ensure global knowledge transfer in a challenging job market, X-FAB is trying to broaden its pool of candidates. In particular, X-FAB is aiming to increase its share of female employees. The share of female employees increased from 23% in 2016 to 25% in 2017 and to 26% in 2018.

Region	Absolute # of employees	Share by region in %	Absolute # of male employees	Absolute # of female employees	Share of female employees in %
North America	466	11.2	348	118	25.3
Europe	2,356	56.7	1,809	547	23.2
Asia	1,332	32.1	909	423	31.6
Total	**4,154**	**100**	**3,066**	**1,088**	**26.2**

Fig 6.2: Number of employees (excluding trainees) by region and gender as at year end 2018

Employees' rights and working standards are highly valued at X-FAB. Consequently, all arrangements comply with corresponding national laws and requirements. X-FAB employees with a full-time contract, which applies to 96% of all employees, work between 35 and 40 hours per week. 93% of employees hold a permanent employment contract. However, X-FAB also supports part-time contracts to offer flexibility in adjusting the work-life balance to varying life and family circumstances. 1% of staff are contract workers.

Location	Gender	Restricted/ fixed term	Unrestricted/ permanent	Contracted	Trainees/ interns	Full-time	Part-time
North America	Male	0	333	15	0	347	1
	Female	0	108	10	0	117	1
Europe	Male	134	1,658	17	70	1,737	72
	Female	45	495	7	13	451	96
Asia	Male	38	871	0	8	909	0
	Female	40	383	0	1	423	0
Total	**Male**	**172**	**2,862**	**32**	**78**	**2,993**	**73**
	Female	**85**	**986**	**17**	**14**	**991**	**97**

Fig 6.3: Employment contracts by type, region, and gender as at year end 2018

About 81% of all contracts in Europe are collective bargaining contracts. In other regions of the world this concept is not common and therefore there are no collective bargaining agreements in place.

In 2018, 560 new employees were hired, 67% of them being male and 33% being female. This increase of 5% compared to 2017 reflects X-FAB's efforts to grow its share of female employees. The majority of newly hired employees are younger than 35 years.

Location	Gender	< 35 yrs	36-50 yrs	51-60 yrs	> 60 yrs	Total
North America	Male	48	15	9	3	75
	Female	30	13	6	0	49
Europe	Male	141	42	12	1	196
	Female	36	25	5	1	67
Asia	Male	93	10	0	0	103
	Female	70	0	0	0	70
Total	**Male**	**282**	**67**	**21**	**4**	**374**
	Female	**136**	**38**	**11**	**1**	**186**

Fig 6.4: Newly hired employees (including contracted workers, excluding trainees) by age and gender in 2018

Location	Gender	< 35 yrs	36–50 yrs	51–60 yrs	> 60 yrs	Total
North America	Male	28	14	3	10	55
	Female	18	11	5	3	37
Europe	Male	63	36	12	50	161
	Female	16	10	4	8	38
Asia	Male	45	12	2	2	61
	Female	23	1	0	0	24
Total	**Male**	**136**	**62**	**17**	**62**	**277**
	Female	**57**	**22**	**9**	**11**	**99**

Fig 6.5: Employees (excluding trainees) who have left X-FAB in 2018 by age and gender

X-FAB conducts an employee engagement survey, referred to as Barometer, on a regular basis. The responses indicate a higher satisfaction and engagement of X-FAB's employees compared to the worldwide high-tech benchmark. This finding is supported by a low turnover rate in 2018 of 5.1% (not including retirements and trainees).

X-FAB is aware of the importance of fair payment. Therefore, all employees receive salaries above the minimum wage according to individual qualification irrespective of gender or age. Of all employees who were on parental leave, nearly 100% returned to X-FAB.

Developing excellence

The success of a company, and thus also X-FAB, depends on whether its employees are able to optimally contribute their individual strengths, which consequently need to be identified and individually developed. The required expertise includes solid knowledge and understanding of X-FAB's internal procedures and production processes as well as job-specific knowledge, all of which are part of the introductory training plan for each new employee. To instill a high level of environmental and social awareness, company values, quality awareness, and employee rights are highlighted from the beginning of the working relationship at X-FAB. Enabling employees to be promoted to positions with either higher technical or staff responsibility requires constant development in different areas. To ensure global knowledge transfer and continual development of all employees, internal workshops, training sessions, Lunch & Learn sessions, Knowledge Networks, and webinars on various technical topics are incorporated into the daily work of every X-FAB employee. Besides technical skills, leadership and project management are also valued competencies in employees and are thus fostered by X-FAB. Leadership and personality development training is performed in cooperation with external partners.

Location	Gender	<35 yrs	36-50 yrs	51-60 yrs	>60 yrs
North America	Male	3	2	2	2
	Female	4	3	2	1
Europe	Male	6	6	3	2
	Female	4	3	2	2
Asia	Male	2	3	4	0
	Female	2	2	3	0

Fig 6.6: Average training hours by age and gender

After a successful program in 2016 for participants from the German sites, X-FAB initiated a dedicated two and a half year education program for professionals from all X-FAB sites designed to develop project management and personal skills. This program concentrates on the areas of "personality and leadership," "project management," "quality management," "strategic thinking" and "cultural awareness". Sixteen employees started the program and alongside their training they will

work on several important strategic projects for the X-FAB Group.

To support the career of X-FAB's technical experts and to acknowledge that technical and management expertise make contributions to the organization that are equally important, X-FAB has established a system of human capital management. An important part of that is X-FAB's Technical Ladder. It enables visionary technical leadership and expertise, and supports recruitment, individual development, and retention of talented people in a competitive employment market, acknowledging the highest levels of technical expertise. The Technical Ladder is a result of standardization processes to ensure comparable job grades and responsibilities in all working areas within X-FAB. This helps X-FAB to fulfill the requirements of technically demanding project work and to implement the company values.

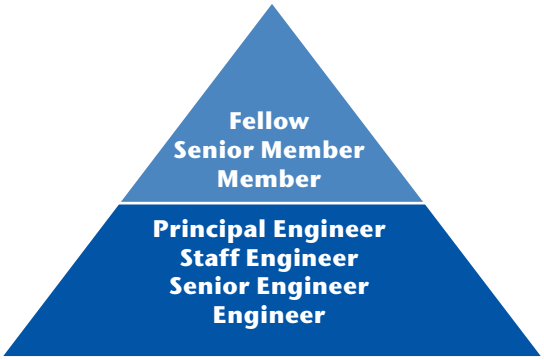


Fig 6.7: X-FAB's Technical Ladder

To keep up with the fast development within the high-tech sector, X-FAB supports innovation – being one of the company values – and participates in publicly funded projects. In those projects, X-FAB enables technical experts to conduct research and to drive state-of-the-art technologies by proving feasibility of new concepts or the industrialization of innovative process technologies. Innovation is appreciated by X-FAB, and technical experts are explicitly invited and encouraged to publish their findings in international journals and to file patents.

Besides the development of its existing staff, X-FAB is highly interested in offering a wide range of opportunities to potential future employees, for example via apprenticeships, internships, and student training. This comprises commercial and technical careers, dual study programs, and financial support for employees who enhance their skill and knowledge by obtaining relevant qualifications. In 2018, for example, X-FAB supported a student from Texas Tech University through an international internship at one of our German sites.

X-FAB also offers dual study programs which combine theoretical sessions and practical work, allowing students to integrate these skills into their future working life from the beginning of their studies. Apprenticeships offered by X-FAB to talented young people cover commercial careers, for example as an office assistant, industrial business specialist, or warehouse logistics specialist, as well as also technical careers, such as a microtechnologist, chemical lab technician, or IT specialist.

Rewarding efforts

As an international company, X-FAB employs people from many different regions around the world with different ethnic origin and social backgrounds, resulting in a broad range of individual needs. Being aware of those needs and driven by the responsibility for the Company's staff as well as the aim of long-term employment, X-FAB strives to meet those needs. Nowadays, the modern world demands a high level of self-responsibility and flexibility, especially from working parents and those with elder care responsibilities. Therefore, X-FAB offers flexible working time models and strives to find individual working time solutions for its employees. X-FAB grants leisure time for private matters, such as moving and marriage, and supports working parents financially in case of their children's illness. Employees above a certain age are offered the possibility to reduce their weekly working hours. Moreover, X-FAB's company pension scheme supports its employees financially after their transition to retirement.

X-FAB cares about its employees' increased health awareness and growing interest in an active way of life. X-FAB supports activities at its different sites to keep employees healthy, such as internal sport groups, soccer teams, and running groups, or reduced pricing for fitness club membership. Furthermore, a variety of fitness activities and trial lessons as well as fitness and health checks are offered to employees during global Environment, Health & Safety (EHS) weeks.

X-FAB is interested in a good working atmosphere and strives to provide a pleasant and inspiring working environment. Cafeterias, lunchrooms, and subsidized meals are offered to employees. Furthermore, chill-out rooms and staff rooms with journals, internet access, and free nonalcoholic drinks are available to support employees during their work breaks.

X-FAB rewards outstanding employee performance with incentive cash payments during the year and in the form of bonuses. Both individual employees and teams who undertake extraordinary efforts for X-FAB's benefit are acknowledged by the Company's corporate management.

6.3 Social commitment

X-FAB encourages its employees to engage in nonprofit and educational activities that contribute to the communities X-FAB is active in. Over several sessions, each employee is trained in the company values with the implementation of those values in everyday work life being recorded in a learning management system (LMS) aiming at personal development. Eventually, this leads to even more innovation and higher ethical standards, which also has a positive impact outside the working environment.

Social awareness and responsibility

X-FAB has identified opportunities for global and local activities that contribute to the communities in which it operates. X-FAB supports such local activities through donations, e.g. with the program "Helping Hands" to support senior citizens by providing aid, food, and clothes and by cleaning public places. X-FAB has also raised money to support local programs as well as international charity organizations, such as United Way Worldwide. Blood donation is one of the most important activities for making a direct personal contribution. X-FAB supports such collective efforts by organizing regular blood donation campaigns several times a year. For employees it is a matter of course to voluntarily support the Red Cross through blood donation.

X-FAB also supports sport events with a charity background by enabling its employees to attend these events. This not only helps to increase team spirit but also supports local organizations and sports clubs. By organizing and participating in the "Race for the Cure," X-FAB's employees raised funds for the American Heart Association.

Educational awareness and responsibility

It is important to X-FAB to invest in the education and skill development of the next generation by sponsoring books and other educational material to kindergartens, supporting lectures at universities (e.g. providing design courses in engineering schools), investing in educational competitions, and organizing summer schools ("Microchip Summer University"). To provide opportunities for practical training and work experience in technical fields, X-FAB offers internships to high school and university students and also offers students company tours on request. X-FAB also cooperates with the program CertiLingua, which guides students towards cultural and language diversity. Besides sponsoring activities, X-FAB maintains close relations with high schools, colleges, and universities to support students by offering internships and career guidance. X-FAB also works with local universities and supported the third annual event of the SEMI High Tech University for high school graduates considering a future career in a science, technology, engineering, or mathematics (STEM) field. In 2018 X-FAB Texas became the first official licensing partner of

SEMI High Tech University and will continue to run sessions in following years.

Various scientific and engineering competitions are supported either by providing knowledge to the participants or by serving as judges, e.g. at the students robotics competition. X-FAB works with many global and local partners to improve educational opportunities for the young, e.g. by supporting corresponding technical clubs. Besides an educational responsibility to society, X-FAB cares about gender equality and the development of girls in STEM jobs. Therefore, X-FAB participates in the "Ability Gender" Project, which encourages girls to consider working in technical areas. X-FAB actively participated within this area by sponsoring and running STEM days for girls.

To maintain contact with the public, X-FAB enables regular public visits and also uses social media channels, such as Facebook, to inform them about social activities and job opportunities. In addition, each X-FAB site participates in college and university career fairs in order to recruit interested students and to inform them about career opportunities. An example is the college fair at the University of Malaysia Sarawak (UNIMAS). Besides its presence at job fairs, X-FAB also participated in numerous technical exhibitions and conferences to offer its employees the possibility to gain and exchange professional knowledge and to network.

6.4 Healthy work environment

Employee's well-being and safety

X-FAB continues to ensure that all company activities are performed in a manner that considers the health and safety of employees, contractors, suppliers, customers, and the general public with no adverse impact on the environment through manufacturing operations and products by operating an EHS Management System that is certified according to ISO 14001:2015.

ISO14001

ISO14001:2015 specifies the requirements for an environmental management system that can be used by an organization to enhance its environmental performance. It is intended to manage an organization's environmental responsibilities in a systematic manner. X-FAB fulfills the requirements of the company's stakeholders as well as those of ISO14001, which are summarized in X-FAB's Guiding Principles:

X-FAB puts particular effort on topics such as perfluorocarbon (PFC), waste disposal, hazardous materials and chemical management, product environment, and accident/incident notification, as well as personal protective equipment (PPE) management.

Education and training to improve employees' EHS awareness, safety, and well-being is critical for X-FAB. Regular safety related training and instruction helps to avoid accidents and injuries. Each location has an associated company doctor who performs routine medical examinations such as eye examinations, vaccinations, travel medical consultations, etc.

Additionally, periodic safety briefings are performed and a global EHS week program is established. At a yearly EHS week, information

about health protection, safety, sustainability, and environmental topics is offered openly to all employees via information desks, posters, and other events. Company tours offered by coworkers increase employees' awareness of hazards in the workplace and training is offered to improve their skills in first aid and firefighting. Furthermore, a variety of fitness activities and trial lessons as well as fitness and health checks are provided to employees. Alongside these dedicated training sessions and events, information on environmental and quality awareness is provided and made accessible to all employees via the company intranet.

At all X-FAB locations accidents are tracked according to local laws, but no globally harmonized procedure exists to collect additional information related to accidents or occupational diseases. However, X-FAB tracks the accidents in the operations department in the same way at all manufacturing locations. Based on this data, 38 accidents caused 3,137 work hours lost in the operations department in 2018. There were no fatal work-related accidents at X-FAB in 2018.

Hygiene concepts for clean rooms

At each of X-FAB's production sites a large share of employees work in a clean room where the use of rubber gloves, special clothes, and shoes is a precedent condition. This is necessary to avoid particle and ion contamination or electrostatic discharge which would inhibit the functionality of the semiconductor products manufactured. These rules, of course, imply some level of liability for each affected employee. Nevertheless, it is X-FAB's goal to prevent any medical harm and to ensure a safe working environment and employees' well-being.

Consequently, X-FAB has established clean room concepts to maintain a high level of hygiene and health, and specific protection plans are defined accordingly. For example, to prevent skin diseases, a skin protection plan is established and skin care products are available at any time for each employee. For orthopedic reasons clean room shoes are individual and ergonomic. Clean room clothes are cleaned on a regular basis and are partially personalized, and ear plugs are available for noise protection.

Preventive maintenance

Maintenance activities are the basis for the safe operation of equipment and tools. To prevent equipment malfunctions and failures X-FAB uses a global procedure to manage a preventive maintenance system. Though its focus is to secure productivity of the equipment, operational safety is one of the objectives covered. The execution of the global procedure is monitored by sub directives who manage the preventive maintenance regime for each production site.

Maintenance instructions and maintenance schedules are primarily based on the equipment manual but also on lessons learnt as well as customer feedback. They also take past tool performance, major incidents, product quality, and audit findings into account. There are two types of preventive maintenance actions: first, actions that are triggered by a time interval, and secondly, actions triggered by reaching special tool parameters describing the current tool wearing.

This altogether helps to secure that the overall tool status remains excellent and to prevent accidents caused by machine malfunctions such as electrical hazards, leakage of dangerous materials, or mechanical issues.

6.5 Environmental responsibility

X-FAB's expertise in process technologies is used by its customers to develop technology for green energy solutions that enable a sustainable future. However, the production of high-quality microchips and sensors requires a huge amount of materials and energy in general. Thus, X-FAB naturally has a high level of responsibility regarding environmental topics. This is why, in addition to the Company's

business, environmental activities are handled with an integrated quality management system, resulting in certification to the ISO 14001:2015 standard for all sites. It is X-FAB's goal to balance current environmental, social, and economic requirements to minimize its impact on future generations. One standard and permanent goal is to fulfill all existing compliance obligations.

Environmental awareness and responsibility

In addition to the company values, X-FAB trains its employees on various topics in order to increase the individual awareness of the Company's environmental impact as well as sustainability. All sites obey the strict corresponding national environmental laws. Further, each site defines specific environmental goals which are renewed annually and implemented to continually reduce the Company's impact on the environment.

Various environmental topics have been assigned to different employees within X-FAB to fully cover those environmental responsibilities, which are in compliance with the EHS Policy, following the requirements of ISO 14001:2015. Accordingly, the roles of waste inspector, energy management inspector, radiation and emission inspector, and safety inspector are defined and trained.

The production of semiconductors requires the use of large amounts of different materials, among them many toxic materials and greenhouse gases. Thus, tracking the material flow and monitoring the material efficiency as well as their use is necessary to reach sustained environmental conservation. All X-FAB sites are located in industrial areas. There are no nature reserves or analogous areas adjacent so the impacts on biodiversity are minimized.

The data that are used to give an overview of the environmental indicators of X-FAB are consolidated across all sites and normalized to sold wafer area in cm^2 (total of 314 million cm^2). Please note that X-FAB Itzehoe is not included, as it is part of a larger site for which the relevant data are extracted. Further, compared to all other sites, the material and energy consumption as well as the corresponding output of waste and gases are not material.

Materials and waste management

The need to use material causing toxic waste in the production of semiconductor products is a special challenge and a key environmental objective. Therefore, material departments and waste commissioners are established at each X-FAB site. The following materials are used for production: solvents, resists, neutral etchants, acids and bases, metals, gases, and water. Classifications and separation of waste are applied by X-FAB in order to reduce the amount of hazardous or non-recyclable waste. The highest amount of waste (hazardous as well as non-hazardous) is sent for recycling in order to recover valuable resources.

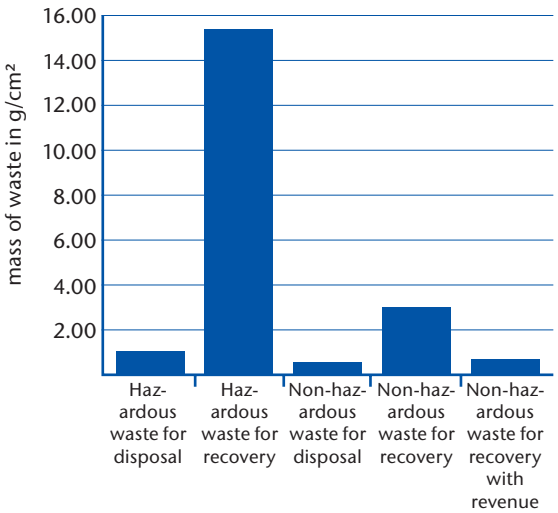


Fig 6.8: Amount of waste by type and disposal method normalized to the total sold wafer area

X-FAB pursues permanent environmental goals to decrease its overall environmental impact. According to consumption and waste management its chosen goals are:

- reduction in consumptions of chemicals by 7,690 l/year (Erfurt);
- reduction of NMP (N-Methyl-Pyrrolidone) emission (Erfurt); and
- reduction in consumption of chemicals by 10,169 l/year (Kuching).

Energy efficiency

At X-FAB, energy is mainly used in the form of electricity whereas other sources play only a minor role. The highest consumption is generated by means of production, because of the advanced clean room conditions and the high energy use production processes. In 2018, X-FAB's global energy consumption was about 483 GWh.

In Erfurt, Dresden, and Corbeil-Essonnes X-FAB has implemented an energy management system according to the requirements of ISO 50001:2011.

ISO 50001

This international standard specifies requirements for establishing, implementing, maintaining, and improving an energy management system, the purpose of which is to enable an organization to follow a systematic approach in achieving continual improvement of energy performance, including energy efficiency, energy use, and consumption.

This enables the assessment of the improvement potential of the Company's energy efficiency and implementation in daily work. Across the Company, different activities and projects exist to reduce energy consumption, which are part of the aforementioned annually renewed environmental goals.

X-FAB's permanent goal is to improve its energy efficiency as a result of different activities and projects:

- reduce energy consumption by 1% each year (all sites); and
- replace recirculating fan LTA5 to save 223 MWh per year (Dresden).

These examples of environmental goals are communicated during EHS weeks that take place on a yearly basis at all sites.

Water

In 2018 X-FAB production consumed roughly 15 liters of water per each cm^2 of sold wafer area. The majority was used for cooling as well as supplying and cleaning production tools. Different sources of water supply are used including surface water, municipal water, and ground water.

Source	Amount in l/cm^2
River water	2.65
Ground water	3.88
Local water supplier	8.57
Total water withdrawal	**15.10**

Fig 6.9: Total water withdrawal by source

Besides the efforts to minimize energy consumption internal projects exist that intend to reduce the amount of water consumed. Some examples include:

- reducing water consumption through a wastewater recycling and reuse project (Lubbock);
- reducing H_2O_2 consumption in cleaning tools (Kuching); and
- reducing water consumption by optimizing the use of rinse water (Erfurt MEMS).

After the water is used for production, the concentration of all substances is enhanced – due to vaporizing steps during the production process – including organic carbons (TOC). Their concentration is above the value that makes the water suitable for production purposes but, of course, far below the legal threshold for freshwater standards. Thus, the majority of the water is discharged directly into the river and the remaining is returned to the municipal water suppliers as wastewater.

Greenhouse gases

Global climate change is an important challenge for all industrial players worldwide. X-FAB understands the climate impact from its operations on society and the global economy. Nevertheless, the production of greenhouse gases is inevitable in the production of microchips and sensors. The total consumption of these gases is given in the following table:

Gas	Amount in mg/cm²
CHF_3	4.16
CF_4	23.17
C_4F_8	2.82
C_3F_8	0.00
C_2F_6	75.16
SF_6	13.43
NF_3	54.89
N_2O	205.30

Fig 6.10: Gas emissions by weight

It is X-FAB's intention to minimize the output of greenhouse gases. Therefore, each production site is equipped with state-of-the-art cleaning systems. The functionality of these systems is of course tracked and linked to the production equipment using greenhouse gases. There are additional measurements at every site to confirm that all regulations are followed. As a result, no significant spills of hazardous substances and greenhouse gases were found in the reporting period. Notable improvements regarding the emission of greenhouse gases in the reporting period were:

- reduction of VOC gas emissions (Erfurt); and
- replacement of inefficient ozone destroyer to reduce ozone emissions by 200 kg/year (Dresden).

6.6 Supply chain

Selection and categorization of X-FAB suppliers

As a manufacturer of a large variety of products, X-FAB relies on a number of suppliers. It is part of the Company's corporate ethics to strive for a long-term partnership with them. The selection and auditing of suppliers is carried out by means of a global, cross-site procedure valid for all X-FAB sites. Part of this procedure is a classification of suppliers, based on, among others, the supplied quantity as well as the frequency of supply: Tier 1 suppliers, strategic suppliers, and all others that do not qualify for one of the two categories. In order to be approved as a new supplier, depending on the categorization, the supplier has to pass a process audit according to the requirements of automotive standard VDA 6.3 (the German Association of the Automotive Industry) and answer various questions, including on environmental topics. The existence of an environmental management system and compliance with RoHS or REACH are important criteria for X-FAB during the selection process for new suppliers.
Furthermore, X-FAB recommends certification according to ISO 14001:2015 or IATF 16949:2016 to its suppliers and their commitment to ZVEI or another industry code of conduct if there is no specific company code of conduct in place that covers corporate social responsibility.

Continual improvement of suppliers

X-FAB stores all certificates and completed questionnaires from its suppliers in a database that is accessible by all X-FAB sites in order to improve the harmonization and standardization of supplier management. The most important suppliers are subject to a supplier assessment once a year. If X FAB's requirements are not met by at least 85%, the supplier must submit proposals for improvement to stay under contract with X-FAB. In addition to these annual assessments, a regular audit exists to verify the existence of a management system.

RoHS and REACH

RoHS is the short form of the "Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment." It aims to address the global issue of consumer electronics waste. It pertains to manufacturing of various types of electronic and electrical equipment without the use of six different hazardous materials. It is the responsibility of the company that puts the product on the market to comply with the directive. REACH stands for Registration, Evaluation, Authorization, and Restriction of Chemicals. The purpose of this European Union regulation is to address the production and use of chemical substances and their potential impacts on both human health and the environment. Whereas RoHS bans substances that are present in electrical equipment, REACH pertains to all chemicals including those used to make a product. This can include materials, solvents, paints, chemicals, and more.

Furthermore, X-FAB has introduced a supplier award system to encourage its suppliers to continuously commit to environmental protection and social aspects. An annual "Supplier Excellence award" is awarded to the best local supplier for each X-FAB site and the supplier with the highest value in the supplier assessment is nominated as "Supplier of the Year."

Handling of conflict minerals

X-FAB is aware of the Dodd-Frank Act requirements regarding, amongst others, the sourcing of tin, tantalum, tungsten, and gold from conflict regions and is accepting its responsibility along the supply chain. Thus, X-FAB requests all its relevant suppliers to source minerals from regions that are conflict free. The commitment of X-FAB suppliers to these requirements is documented in a central company database to ensure traceability and transparency.

X-FAB has subscribed to a product declaration committing that, to the best of its knowledge, X-FAB products do not contain materials that have been sourced from mines in conflict regions in the eastern region of the Democratic Republic of Congo. As the list of compliant tungsten smelters based on the "Conflict-Free Smelter Program" is still in progress, X-FAB will continually work with its suppliers on this matter. All strategic material suppliers for materials containing tungsten, tantalum, tin, and gold must complete the Conflict-Free Smelter Reporting Template.

X-FAB's responsibility towards its customers and society

In line with its EHS policy, X-FAB continually works on the reduction of its environmental impact via legal compliances and also promotes human rights values among its suppliers and customers. It is X-FAB's policy to ensure that all purchased materials are compliant with current government and safety constraints on restricted, toxic, and hazardous materials and that all environmental standards, applicable to the country of manufacture and sale, are fulfilled.

X-FAB follows RoHS and meets the requirements of REACH. X-FAB thereby confirms that all its products are halogen-free and do not contain intentionally introduced lead (Pb), cadmium (Cd), mercury (Hg), hexavalent chromium (Cr6+), polybrominated biphenyl (PBB), or polybrominated diphenyl ether (PBDE). Furthermore, RoHS and REACH-conformant safety data sheets are available for all X-FAB products and are accessible to every X-FAB customer on the Company's website. Finally, all products do not contain any of the substances in the Candidate List of Substances of Very High Concern.

There is a global procedure in place to control and avoid negative health and safety impacts, requiring that every X-FAB product is tested at every stage of development. In addition, all X-FAB products are inspected annually by an external institute for hazardous substances, and the Company's customers are informed about the results by means of product declarations.

It is part of the Company's ethics that products are not sold into countries that are listed on an embargo list for corresponding products. During 2018, X-FAB was compliant with laws in relation to this provision and the use of X-FAB products and did not have to pay any fines for violations.

X-FAB also makes use of its special capabilities as a foundry to support innovative technical ideas through an award program. Here, free slots at a multiproject wafer run for the "First-Time-Right award" and the "X-Cite award" are granted. These X-FAB awards honor skilled designers who meet target specifications within the first-time design and production iteration, and are selected by an X-FAB committee.

7. CORPORATE GOVERNANCE STATEMENT

The information included in this chapter has been prepared in order to comply with Articles 96 and 119 of the Belgian Companies Code with respect to the Board of Directors' annual report. Reference is made to chapter 10 with respect to the risk factors, chapter 6 for the non-financial information, chapter 1 for information on subsequent events, chapter 5 for the use of financial instruments, chapter 4 for information on research and development, and chapter 8 for transparency requirements related to the shareholder structure.

The Royal Decree of June 6, 2010 (published in the Belgian Official Gazette on June 28, 2010) designated the Belgian Code on Corporate Governance 2009 as the reference code for Belgian listed companies. This Code is available for download on the website of the Belgian Corporate Governance Committee (www.corporategovernancecommittee.be).

X-FAB has aligned its Corporate Governance Charter with the 2009 Belgian Code on Corporate Governance. In view of the "comply-or-explain" principle of the Code, section 7.12 gives an overview of the provisions of the Code that X-FAB does not comply with, along with an explanation of the reasons for non-compliance. The Corporate Governance Charter can be consulted on the "Investors" page of the Company's website.

7.1 Shareholders

X-FAB seeks to guarantee transparent and clear communication with its shareholders. Active participation of the shareholders is encouraged by X-FAB.

In order to achieve this goal, shareholders can find important and relevant information on X-FAB's website. X-FAB publishes its annual reports, half-year reports, statutory reports, quarterly results, and financial calendar on its website in the "Investors" section. X-FAB realizes that the publication of these reports and information benefits its trust-based relationship with its shareholders and other stakeholders.

Furthermore, X-FAB is committed to guaranteeing shareholder rights.

- At the shareholders' meeting, the Chairman will lead the meeting in such a manner that there will be sufficient time to answer questions that shareholders may have relating to the annual report, special reports, and/or the items on the agenda.
- At the latest 30 days prior to the general meeting, the agenda and other relevant documents are published in different locations including X-FAB's website and the Belgian Official Gazette.
- Shareholders representing at least 10% of the share capital have the right to add items and/or resolution proposals to the agenda.
- During the general meeting, shareholders have the right to vote on each item on the agenda.
- If they cannot attend the general meeting, they have the right to appoint a proxy.
- The minutes of the general meeting with the voting results will be kept in a special register after the general meeting.

Chapter 8 shows the shareholder structure of X-FAB based on the transparency notifications received.

7.2 Management structure

X-FAB has opted for a "one-tier" governance structure whereby the Board of Directors is the ultimate decision-making body, with overall responsibility for the management and control of the Company. The Board of Directors is vested with the power to perform all acts that are necessary or useful for the realization of the Company's purpose, except for those actions that are specifically reserved by law or the Articles of Association to the shareholders' meeting or other management bodies. As such, the Board, among others, defines the general policy orientations, decides on major strategic, financial, and operational matters, and oversees the management.

The Board has established committees (an Audit Committee and a Remuneration and

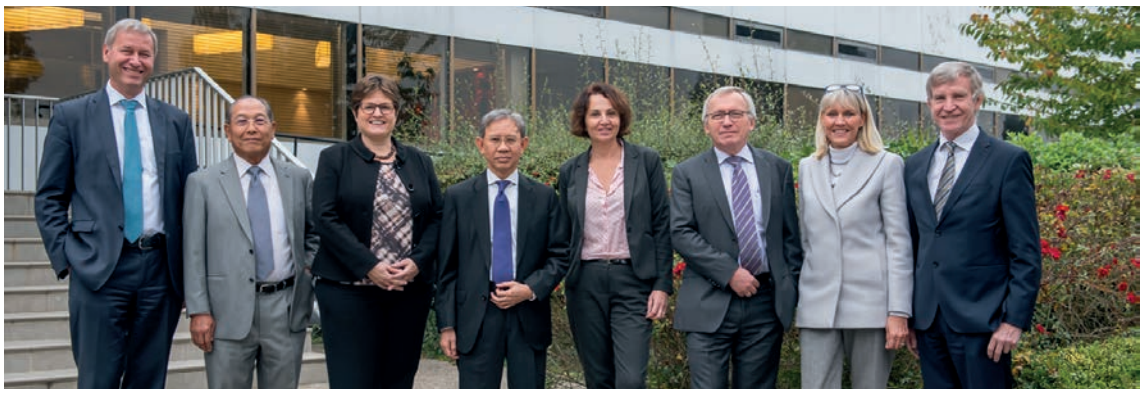


Fig 7.1: Rudi De Winter, Tan Sri Hamid Bin Bugo, Christel Verschaeren, Dato Sri Ahmad Tarmizi bin Haji Sulaiman, Estelle Iacona, Hans-Jürgen Straub, Christine Juliam, Roland Duchâtelet (from left to right)

Nomination Committee) to analyze specific issues and advise the Board on those issues. The decision-making power remains within the responsibility of the Board of Directors itself.

The daily management of X-FAB has been delegated by the Board of Directors to the Chief Executive Officer, Mr. Rudi De Winter, who can represent the Company with his sole signature within and outside the framework of the daily management. For actions that fall outside the scope of the daily management, X-FAB is also validly represented by two directors acting jointly.

The Chief Executive Officer is also the chairman of the Executive Management. The Executive Management is responsible for leading X-FAB in accordance with the global strategy, values, planning, and budgets as set out and approved by the Board of Directors. The Executive Management is also responsible for screening the various risks and opportunities that the Company might encounter in the short, medium, or longer term, as well as for ensuring that systems are in place to identify and address these risks and opportunities.

7.3 Board of Directors

Composition

In accordance with Article 15 of X-FAB's Articles of Association, the Board of Directors consists of at least five members and may be comprised of a maximum of nine members. At least three members should be independent in accordance with Article 526ter of the Companies Code. As of the date of this annual report, the Board of Directors comprises eight members, three of which are indeed independent.

At least half of the Board of Directors consists of non-executive members and there is at least one executive member. Independent directors qualify as non-executive directors.

The term of office of directors under Belgian law is limited to six years (renewable) but the Corporate Governance Code recommends that it be limited to four years. Directors of X-FAB are appointed for a period of four years by the majority of the votes cast at the general meeting, after having received a recommendation of the Remuneration and Nomination Committee. In the same way the general meeting may revoke a director at any time. There is no age limit for directors, and directors with an expiring mandate can be reappointed within the limits stipulated in the Companies Code.

The Chief Executive Officer is the only member of the Board of Directors that has an executive mandate. The Chairman of the Board is Dato Sri Ahmad Tarmizi Bin Haji Sulaiman.

On October 25, 2018, the Board of Directors decided unanimously, upon recommendation of the Remuneration Committee, to nominate Ms. Ling Qi as independent director. The appointment is subject to the confirmation of the shareholders' meeting in 2019.

The composition of the Board of Directors already takes into account Article 518bis of the Companies Code which requires that one third of its members have to be of a different gender.

The directors of X-FAB are:

Name	Age	Mandate expires	Position
Dato Sri Ahmad Tarmizi bin Haji Sulaiman	56	2021	Chairman of the Board (non-executive director)
Sensinnovat BVBA (Represented by Rudi De Winter)	58	2021	Managing Director, CEO
Roland Duchâtelet	72	2021	Non-executive director
Thomas Hans-Jürgen Straub	64	2021	Non-executive director
Tan Sri Dr. Hamid Bin Bugo	73	2021	Non-executive director
Aurore NV (Represented by Christine Juliam)	58	2022	Non-executive and independent director
Christel Verschaeren	54	2021	Non-executive and independent director
Estelle Iacona	46	2021	Non-executive and independent director

Dato Sri Ahmad Tarmizi bin Haji Sulaiman, Chairman, is the State Financial Secretary of the Malaysian State of Sarawak since July 1, 2004. Prior to his current appointment, he was the Deputy State Financial Secretary of the Malaysian State of Sarawak since October 1, 2002. He served as the Chief Executive Officer of Amanah Saham Sarawak Berhad from August 1993 to September 2002. He was the fund manager at Arab-Malaysian Merchant Bank Berhad and, following that, American International Assurance. He is currently also a board member of several corporate and governmental agencies. He has a degree in business administration from Syracuse University, New York, and a master in business administration from the University of Wisconsin, USA.

Sensinnovat BVBA is represented by Mr. Rudi De Winter. Mr. De Winter joined X-FAB in 2011 as Co-CEO and became CEO in 2014. Between 1996 and 2011 he served as the Chief Executive Officer and Managing Director of Melexis NV. Prior to that date, Mr. De Winter served as a development engineer at Mietec Alcatel (Belgium) from 1984 to 1985 and as a development manager at Elmos GmbH (Germany) from 1985 to 1989. In 1990, Mr. De Winter became director together with Mr. Duchâtelet of XTRION NV, the parent company of X-FAB. Mr. De Winter holds a degree in electronic engineering from the University of Ghent. Mr. De Winter is married to Ms. Chombar, the Chief Executive Officer and Managing Director of Melexis NV.

Mr. Roland Duchâtelet started his career serving in various positions in production, product development, and marketing functions for several large and small companies. He contributed to the start-up of two other semiconductor manufacturers: Mietec Alcatel (Belgium) from 1983 to 1985 as business development/sales manager and Elmos GmbH (Germany) from 1985 to 1989 as marketing manager. Mr. Duchâtelet is the co-founder of the parent company of X-FAB. He holds a degree in electronic engineering and applied economics and an MBA from the University of Leuven.

Mr. Thomas Hans-Jürgen Straub has more than 30 years of experience in the management of semiconductor companies. From 1982 to 1990, Mr. Straub served as Head of Central Planning at the Kombinat Mikroelektronik in Erfurt. Thereafter, Mr. Straub was a member of the managing board of PTC Electronic AG, a holding company that managed 18 subsidiaries. From 1991 to 1999, Mr. Straub served as president of several companies, including Mikroelektronik und Technologie-Gesellschaft mbH, Dresden and Thesys Gesellschaft für Mikroelektronik mbH, Erfurt. From 1999 to 2014, Mr. Straub served as Chief Executive Officer of X-FAB. Mr. Straub holds a diploma in economics from the Hochschule für Ökonomie Berlin (Berlin Business School).

Tan Sri (Dr.) Hamid Bugo has worked as personnel manager for Malaysia LNG Sdn. Bhd. (a joint venture between Petronas, Shell and Mitsubishi), as the first General Manager of the Land Custody and Development Authority of Sarawak, Permanent Secretary to the Ministry of Resource Planning and State Secretary of Sarawak. He has also served as a board member of several corporate and government agencies including Malaysian Anti-Corruption Commission, Malaysia National Water Council, Employees Provident Fund, Sime Darby Berhad, and Malalysia LNG Sdn. Bhd. Currently he sits on the Board of Sapura Energy Berhad, and chairs Sarawak Consolidated Industries Berhad, Sarawak Petroleum Berhad, and Sapura Resources Berhad. Tan Sri (Dr.) Bugo was a Colombo Plan Scholar and graduated with a master's degree in economics and political science from Canterbury University, New Zealand. He was awarded an honorary PhD in commerce by Lincoln University, New Zealand.

Aurore NV is represented by Ms. Christine Juliam. She started her career in clinical research at MSD in Belgium before moving into product management, and subsequently into sales, marketing, and business planning responsibilities. In July 1996, she started to work for Abbott Belgium as director of its pharmaceutical product division and joined Nycomed as Managing Director Belgium/Luxembourg in 2006. From 2011 onwards she was Region Head for France, the Netherlands, Belgium, and Luxembourg for Nycomed, which was acquired by Takeda in the same year. Subsequently, Ms. Juliam managed Takeda Italy and France as country manager between 2013 and 2017. Christine Juliam has a doctor of medicine degree from the University of Ghent, a license in marketing from St. Aloysius College in Brussels, a master's in management from Solvay Commercial School in Brussels, and an MBA from Northwestern University.

Ms. Christel Verschaeren served for 29 years at IBM. She held different technical positions as well as commercial leadership positions in general business, channel sales, and inside sales. She led business operations for IBM Belgium/Luxembourg for three years. In 2005, she became Director of Business Transformation and IT for IBM Europe. From 2010 until 2012 she served as Director Global Organizational Change Management. From 2012 until 2016 she was the VP of CIO Services in EMEA. Ms. Verschaeren holds a master's in economics from the University of Antwerp.

Ms. Estelle Iacona was a director of EM2C laboratory (CNRS, École Centrale Paris) from 2008 to 2012 after which she became Dean and Vice-President Research of the École Centrale Paris until December 2014. In 2014, she also became Dean and Vice-President Research and Industrial Partnership of the École Supérieure d'Electricité (Supélec) in Paris. From January 2015 until September 2016 she was the Dean and Vice-President Research of the CentraleSupélec. Currently, Ms. Iacona is Executive Vice President for Academic Affairs and Research Professor in the CentraleSupélec and member of the board of École Centrale Casablanca. Ms. Iacona holds an engineering degree and a master of science from the University of Nantes (Polytech'Nantes) and a PhD in physics of transfer from the École Centrale Paris.

Appointment and replacement of directors

The Articles of Association (Article 16) and the X-FAB Corporate Governance Charter contain specific rules concerning the (re)appointment, the induction, and the evaluation of directors. Directors are appointed for a term not exceeding four years by the general meeting of shareholders, who can also revoke their mandate at any time. An appointment or dismissal requires a simple majority of the votes cast.

If and when a position of a director prematurely becomes vacant within the Board, the remaining directors have the right to temporarily appoint a new director until the next general meeting which shall confirm such appointment. Said appointment will then be included in the agenda of the next general meeting.

The Remuneration and Nomination Committee makes recommendations to the Board with regard to the appointment of directors, the CEO, and the other members of the Executive Management. The Committee will consider proposals made by the members of the Board or other relevant parties.

Functioning of the Board

The internal regulation of the Board is part of the Corporate Governance Charter. In principle, the Board of Directors meets on a quarterly basis. Additional meetings may be called with appropriate notice at any time to address specific needs of the business. A meeting of the Board of Directors must in any event be convened if so requested by at least two directors.

The Board convened seven times in 2018 and discussed, among others, the following topics:

- financial results of the Group;
- merger and acquisition activity;
- sales strategy;
- strategic review;
- intercompany financing;
- transfer pricing aspects;
- operational excellence program;
- budget for the financial years 2019–2021; and
- management structure.

Dato Sri Ahmad Tarmizi Bin Sulaiman could not attend two meetings of the Board and was represented by a proxyholder during two other meetings. Mr. Thomas Hans-Jürgen Straub was represented by proxy during one meeting of the Board. Both Aurore NV, represented by Christine Juliam, and Christel Verschaeren could not attend one meeting of the Board.

Under the lead of the Chairman, the Board regularly evaluates its scope, composition, and performance and that of its committees, as well as the interaction with the executive management. One of the proposed changes was to enrich the Board with international business management experience in China by proposing the nomination of Ms. Ling Qi.

7.4 Committees

Audit Committee

The Audit Committee advises the Board of Directors on accounting, audit, and internal control matters as further detailed in the Company's Corporate Governance Charter. The Audit Committee also assists the Executive Management in its assessment and follow-up of the auditor's recommendations.

The Audit Committee is composed of four non-executive members: Tan Sri Hamid Bin Bugo, Chairman; Aurore NV, represented by Ms. Christine Juliam, independent director; Ms. Christel Verschaeren, independent director; and Ms. Estelle Iacona, independent director.

According to Article 526bis, section 2 of the Belgian Companies Code the members of the Audit Committee maintain a collective expertise in the field of the Company's activities. At least one of them shall have accounting and audit expertise. Given his education as well as extensive experience as a board member for a number of different companies, Mr. Hamid Bin Bugo complies with this requirement.

In 2018, the Audit Committee met four times. During these meetings the audit plan and key audit matters were discussed with the external auditor. Other topics covered were the approach towards deferred tax assets and transfer pricing. With the exception of one meeting, from which Ms. Estelle Iacona was excused, all members of the Audit Committee as well as the external auditor attended all meetings. The internal auditor was present at two meetings.

Remuneration and Nomination Committee

The Remuneration and Nomination Committee advises the Board of Directors principally on matters regarding the appointment and remuneration of directors and members of the Executive Management.

The Remuneration and Nomination Committee is composed of four non-executive members: Ms. Christel Verschaeren, Chairman; Aurore NV, represented by Ms. Christine Juliam,

independent director; Tan Sri Hamid Bin Bugo, non-executive director; and Ms. Estelle Iacona, independent director.

The Remuneration and Nomination Committee met four times in 2018. All members were present at all meetings.

7.5 Executive Management

Composition

The Executive Management is composed of the following members:

Name	Age	Position
Rudi De Winter	58	Chief Executive Officer
Alba Morganti	50	Chief Financial Officer
Dr. Manfred Riemer	63	Chief Operating Officer
Dr. Jens Kosch	58	Chief Technology Officer
Mike Young	58	Chief Executive Officer, X-FAB Sarawak
Jean-Paul Beisson (until 1 October 2018)	65	Chief Executive Officer, X-FAB France
Lloyd Whetzel	61	Chief Executive Officer, X-FAB Texas
Dr. Dirk Drescher	53	Chief Executive Officer, X-FAB Dresden Chief Executive Officer, X-FAB France (from 1 August 2018)

Functioning

The Executive Management Team is composed of the CEO, the CFO, the COO, the CTO, and the site managers of X-FAB France, X-FAB Sarawak, X-FAB Texas, and X-FAB Dresden. The members are appointed and removed by the Board of Directors after having received the advice of the CEO and the Remuneration and Nomination Committee.

The Executive Management Team exercises the duties assigned to it by the Board of Directors and the CEO, under the ultimate supervision of the Board of Directors.

The CEO leads the Executive Management Team, within the framework established by the Board of Directors and under its ultimate supervision. The CEO chairs the Executive Management Team.

7.6 Diversity policy

At the end of the reporting year, three of the eight members of the Board are female. Consequently, the composition of the Board is in line with the requirements of the Belgian Companies Code on diversity. With the addition of Ms. Ling Qi, X-FAB achieves the best possible equilibrium.

X-FAB continues to be managed by the Executive Management in place prior to the initial public offering in light of their proven track record. Nevertheless, X-FAB will continue to optimize its recruitment policy and will consider gender diversity in future recruitments. In 2018 no new members joined the Executive Management.

7.7 Remuneration report

Remuneration of directors

The remuneration policy of the directors is determined by the shareholders' meeting. The company's non-executive directors are remunerated for their services with a fixed annual compensation for attending Board meetings, as well as meetings of the Remuneration and Nomination Committee and the Audit Committee in which they are appointed. X-FAB strives to set the remuneration in such a way to ensure the right people can be attracted and to ensure directors can spend sufficient time on their mandate. The remuneration policy will not materially change in the next two financial years.

If members of the Executive Management are appointed as director in the Board, their director mandate will not be remunerated, but they will receive remuneration for their executive duties within the Company.

The general meeting approved a fixed annual remuneration of EUR 15,000 (USD 17,727), an additional annual remuneration of EUR 5,000 (USD 5,909) for each membership in a Board committee as well as a reimbursement of reasonable costs to attend the Board and/or committee meetings. The directors are expected to uphold the expenditure policy within X-FAB and to submit suitable justification for their costs. Mr. Roland Duchâtelet waived his right to receive any remuneration as non-executive Board member. In 2018, X-FAB paid in total USD 153,638 as remuneration to the non-executive directors and USD 36,343 as reimbursement of costs as follows:

Name	Remuneration (in USD)	Costs (in USD)
Dato Sri Ahmad Tarmizi bin Haji Sulaiman	USD 17,727	USD 17,727
Roland Duchâtelet	-	-
Thomas Hans-Jürgen Straub	USD 17,727	-
Tan Sri Hamid Bin Bugo	USD 29,546	USD 17,727
Aurore NV (represented by Christine Juliam)	USD 29,546	-
Christel Verschaeren	USD 29,546	-
Estelle Iacona	USD 29,546	USD 889

The reimbursement of costs for Dato Sri Ahmad Tarmizi bin Haji Sulaiman and Tan Sri Hamid Bin Bugo mainly result from traveling expenses given that both members have to travel from Malaysia. Also for Estelle Iacona the reimbursed costs represent travel expenses.

The performances of directors are evaluated by the Board of Directors to ensure that only persons with competences matching X-FAB's international ambitions are nominated as director.

Remuneration of Executive Management

The Board, upon recommendations by the Remuneration and Nomination Committee, decides on the policy governing the remuneration of the CEO and of the other members of the Executive Management Team, including any share-based or other incentives (without prejudice to the powers of the shareholders' meeting, to the extent applicable). In fixing compensation levels for the Executive Management, both the market pay levels and internal practices are considered.

The remuneration of the Executive Management is designed to:

- ensure that the Company can continually attract, motivate, and retain high-caliber and high-potential executive talent for which the Company competes internationally;
- promote the achievement of Board approved performance goals and targets, aligned with building stakeholder value over the short and longer term; and
- stimulate, recognize, and reward strong individual contribution and team performance.

The Articles of Association, as allowed under the Belgian Companies Code, authorize the Company to deviate from the following rules set out in Article 520ter of the Belgian Companies Code:

- in the event that the variable remuneration constitutes more than 25%, at least 25% of the variable remuneration must relate to predetermined and objectively measurable performance criteria deferred over a minimum period of two years, and at least another 25% must relate to such criteria deferred over a minimum period of three years; and

- in respect of share-based remuneration, shares can only vest and options giving the right to receive shares or any other rights to acquire shares can only be exercisable as from three years after the grant.

The compensation of the Executive Management members combines three integrated elements: base salary, variable pay, and other benefits.

The base salaries remain in line with market average. Variable pay payments are dependent on the Company's performance and the individual/team performance measured through the achievement of pre-established targets. They can vary up to 60% of the annual base salary, except for the CEO, who can potentially receive a variable pay up to 50% of his annual base salary. Variable pay is paid out in cash. No shares, options, or other rights to acquire shares are granted as part of the compensation. The other benefits concern only a smaller part of the total compensation of the Executive Management.

The Remuneration and Nomination Committee evaluates the performance of the CEO and discusses with the CEO the performance of the other members of the Executive Management.

The Remuneration and Nomination Committee then makes recommendations to the Board of Directors with respect to the compensation level of the CEO and the other members of the Executive Management based on performance outputs and a benchmark analysis of compensation levels for similar positions at comparable companies. The Company has not materially deviated from its remuneration policy during the reported financial year and has no plans to materially change the policy in the next two financial years other than changing the evaluation period of the variable pay of the CEO.

CEO

The remuneration of the CEO will be based on recommendations made by the Remuneration and Nomination Committee. The remuneration is determined by the Board of Directors.

Of all the members of the Executive Management only the CEO is also a member of the Board of Directors. The CEO does not receive additional remuneration for this mandate.

The remuneration of the CEO is composed of a fixed and a variable amount. The variable pay of the CEO may vary up to 50% of the determined fixed compensation. The annual variable pay opportunities are determined by (i) global business performance measured through revenue growth and EBIT growth, which represents a 50% opportunity of the total variable pay, and (ii) an assessment of individual performance measured through achievement of pre-established targets, which represents a 50% opportunity of the total variable pay.

For 2018, the evaluation period for both components was the preceding year. As of 2019, the variable pay of the CEO is determined over a multi-year payout period: (i) 50% of the variable pay will be based on performance criteria measured over the performance year itself; (ii) 25% of the variable pay will be based on performance criteria measured over two financial years; and (iii) 25% of the variable pay will be based on performance criteria measured over three financial years. The funding levels for the annual variable pay are dependent on the Company's performance against approved financial targets.

Any variable pay granted to the CEO over and above the base remuneration is revocable.
In 2018, the CEO received fixed remuneration amounting to USD 295,457 and a variable pay compensation of USD 73,864.

Sensinnovat BVBA (represented by Rudi De Winter)	Remuneration 2018 (in USD)
Base remuneration	USD 295,457
Variable remuneration	USD 73,864*
Pension	-
Extra-legal arrangements	-
Reimbursement of costs	-

**Note: the variable remuneration represents the amount paid in 2018 for performance in 2017.*

The CEO does not benefit from contributions to a pension scheme, nor does he have any extra-legal arrangements through an individual/group insurance paid for by the Company, nor does he receive any other fringe benefits.

Other Executive Managers

The total amount of the fixed remuneration of the other members of the Executive Management amounted to USD 1,125,487 in 2018. The total of the 2018 variable pay component payouts amounted to USD 290,404.

Executive Managers	Remuneration 2018 (in USD)
Base remuneration	USD 1,125,487
Variable remuneration	USD 290,404*
Pension	USD 185,326
Extra-legal arrangements	USD 54,977
Reimbursement of costs	USD 5,487

**Note: the variable remuneration represents the amount paid in 2018 for performance in 2017.*

The Executive Management variable pay scheme does not include a multi-year payout horizon so far.

The annual variable pay opportunities of the Executive Management, except for the CEO, can constitute up to maximum 60% of the annual base remuneration and include (i) a global business performance measured through revenue growth and EBIT growth, which represents a 50% opportunity of the total variable pay; and (ii) an assessment of individual performance measured through achievement of pre-established targets, which represents a 50% opportunity of the total variable pay. The evaluation period for both components was the preceding year.

In the event that any variable remuneration would be paid based on incorrect financial data, such miscalculation could be compensated with the payment of future remuneration.

The members of the Executive Management, except for the CEO, also benefit from extra-legal arrangements through a group insurance that is in effect in their respective home countries, i.e. pension, life insurance, disability, and medical insurance, all defined contribution schemes. All these group insurance elements are in line with home country market practices and only represent a minor portion of their remuneration.

Members of the Executive Management have contractual agreements with the Company or with a subsidiary of the Company that provide for severance payments in case of termination of the contract in line with the applicable laws of the country where the Company or its subsidiary is located.

In 2018, one member of the Executive Management Team, Mr. Jean-Paul Beisson (CEO of X-FAB France SAS), decided to retire. A retirement benefit of USD 111,932 was paid out in accordance with the requirements of French legislation. This amount has been included in the row labeled “Pension” in the above table.

7.8 Policy on certain transactions

Conflicts of interest of the Board of Directors
According to Article 523 of the Companies Code a member of the Board of Directors has to inform the other directors about any item on the agenda of the Board that will cause a direct or indirect conflict of interest of a financial nature to him/her. In this event the respective director may not participate in the deliberation and voting on this agenda item.

Pursuant to Article 524 of the Belgian Companies Code, companies listed on the stock exchange must follow a special procedure before decisions are taken or operations are executed concerning (i) the relations of the listed company with an affiliated company, except its subsidiaries, and (ii) the relations between a subsidiary of the listed company and an affiliated company of the subsidiary, other than a subsidiary of the subsidiary. Prior to the decision or transaction, a committee composed of three independent directors, assisted by one or more independent experts, must prepare written advice for the Board of Directors. The auditor delivers an opinion regarding the accuracy of the information contained in the committee advice and in the minutes of the Board of Directors' decision. The advice of the committee, an excerpt from the minutes of the Board of Directors, and the opinion of the auditor have to be recorded in the annual report of the Company.

In 2018, there have been no conflicts of interest for which the procedure of Articles 523 or 524 of the Companies Code needed to be applied.

Other transactions with directors and Executive Management
As determined by section 3.6.2 (a) of the X-FAB Corporate Governance Charter, members of the Board of Directors should arrange their personal and business affairs in such a way as to avoid conflicts with X-FAB. Moreover, the members of the Board of Directors and the Executive Management are not permitted to enter, either directly or indirectly, into agreements with X-FAB or any of its subsidiaries for the provision of paid services or goods, unless explicitly authorized by the Board of Directors. Such agreements must always be at arm's length. Please refer to note 11 on related party transactions.

In 2018, there were no transactions between the Company and its directors or Executive Managers involving a conflict of interest. All related party transactions were made on terms equivalent to those that prevail in arm's length transactions.

Insider trading
In compliance with the Belgian Corporate Governance Code 2009 and EU regulation on market abuse (EU No. 596/2014) the X-FAB Insider Trading Policy was updated in 2017. A summary of the Dealing and Disclosure Code has been incorporated into the Corporate Governance Charter of X-FAB. The Dealing and Disclosure Code was approved by the Board of Directors on March 17, 2017.

X-FAB complies with the Belgian provisions on insider trading and market abuse. In this respect a list is kept up to date of all people with managerial responsibilities as well as all other people who have access to sensitive information which could have an effect on the share price.

The purpose of the X-FAB Insider Trading Policy is to prevent the abuse of information which could have a considerable effect on the share price, in particular during the periods prior to the publication of financial results, or decisions or events that can affect the share price. As determined in the X-FAB Insider Trading Policy it is prohibited to sell X-FAB shares during such a close period. This close period is a period of 30 calendar days immediately preceding the announcement of the financial results.

Moreover, before trading any company shares, the members of the Board and the Executive Management have to receive the green light from the Compliance Officer and

have to report back once the transaction has been completed. Furthermore, in compliance with the same legislation, the members of the Board and the Executive Management have to advise of all their transactions above a certain threshold in X-FAB shares to the Belgian Financial Services and Markets Authority, which will publish these notices on its website.

Compliance with the X-FAB Insider Trading Policy will be supported and verified by the Compliance Officer.

7.9 Internal control and risk assessment procedures in relation to financial reporting

The internal control and risk assessment procedures in relation to the process of financial reporting are coordinated by the Chief Financial Officer. Such procedures are in place to ensure that the financial reporting is based on reliable information and that the continuity of the financial reporting in conformity with the IFRS accounting principles is guaranteed.

The process of internal control in relation to the financial reporting is based on the following principles:

- Data on transactions or use of assets of the Company are registered accurately and saved in an automated global enterprise resource planning (ERP) system by the different X-FAB business units.
- Accounting transactions are registered in globally standardized operating charts of accounts.
- The financial information is prepared and reported in first instance by the accounting teams in the different legal entities of X-FAB worldwide.
- Consequently the finance managers at the different X-FAB sites will review the prepared and reported local financial information before sending it to the Global Finance Department.
- In the Global Finance Department the financial information will receive its final review before it is included in the consolidated financial statements.

X-FAB is validly represented by the sole signature of the CEO for all aspects within and outside the daily management of the Company. Specific powers are granted to members of the Executive Management to represent X-FAB in matters that relate to the functional area for which they are responsible. For actions that fall outside the scope of the daily management, the Company is validly represented by two directors acting together.

In the event of the detection of certain deficiencies, this will be reported to the Executive Management to determine which appropriate measures can be taken.

The risk assessment in connection with the financial reporting is based on the following principles:

- Risks that the Company is confronted with are detected and monitored by the responsible persons of the different departments of the Company.
- By using an automated ERP system, the responsible persons of the departments have permanent access to the financial information with regard to their functional area for monitoring, controlling, and directing purposes with regard to their business activities.
- Closing the accounts at the end of every month warrants that the financial consequences of the identified risks are monitored closely to be able to anticipate to possible adverse evolutions.
- The financial results are also reviewed monthly on a global level.
- A data protection system based on antivirus software, internal and external backup of data, and the controlling of access rights to information protects the Company's information and guarantees the continuity of the financial reporting. The adequacy and integrity of these IT systems and procedures are reviewed regularly.
- In accordance with the 2009 Belgian Code on Corporate Governance X-FAB has set up an internal audit function for its financial department, whose resources and skills are adapted to assess the financial reporting and the risk management of the Company. The Audit Committee receives a periodic summary of the internal audit activities.

7.10 Description of certain information from the Articles of Association and elements pertinent to a takeover bid

Capital structure

The registered capital of X-FAB amounts to EUR 657,456,850.68 and is represented by 130,781,669 equal shares without par value. The shares are in registered or dematerialized form.

Restrictions on the transfer of securities

The Articles of Association contain no restrictions on the transfer of the shares. The Board of Directors is furthermore not aware of any restrictions imposed by law on the transfer of shares by any shareholder, except in the framework of market abuse regulations.

Restrictions on the exercise of voting rights

Each share entitles the holder to one vote. The Articles of Association contain no restrictions on the voting rights and each shareholder can exercise their voting rights provided they are validly admitted to the general meeting and their rights have not been suspended. Pursuant to Article 11 of the Articles of Association the Company is entitled to suspend the exercise of the rights attaching to securities belonging to several owners until one person is appointed towards the Company as representative of the security.

No one can vote at the general meeting using voting rights attached to securities that have not been reported in due time in accordance with the Articles of Association and with the law.

The Board is not aware of any other restrictions imposed by law on the exercise of voting rights.

Agreements among shareholders

XTRION NV and Sarawak Technology Holdings Sdn. Bhd. have entered into a shareholders' agreement as shareholders of X-FAB (the "Shareholders' Agreement").

The Shareholders' Agreement applies for as long as each of the shareholders holds more than 5% of the shares in X-FAB. The Shareholders' Agreement addresses certain matters relating to the governance of X-FAB as well as the transfer of shares in X-FAB held by the parties to this Shareholders' Agreement.

Pursuant to the terms of the Shareholders' Agreement, XTRION NV and Sarawak Technology Holdings Sdn. Bhd. each have the right to appoint two directors on the Board of Directors. The Shareholders' Agreement furthermore provides for certain restrictions on the ability of XTRION NV and Sarawak Technology Holdings Sdn. Bhd. to transfer their shares in X-FAB.

Amendments to the Articles of Association

Matters involving special legal quorum requirements include, among others, amendments to the Articles of Association, issues of new shares, convertible bonds, or warrants and decisions regarding mergers and demergers, which require at least 50% of the share capital to be present or represented. If the quorum is not reached, a second meeting may be convened at which no quorum shall apply.

Matters involving special majority requirements include, among others, decisions regarding mergers and demergers, which require a majority of at least 75% of the votes cast.

Authorities of the Board to issue, buy back, or dispose of own shares

The Articles of Association foresee that the Board of Directors may increase the registered capital of the Company in one or several times by a (cumulated) amount of maximum EUR 657,456,850.68. Such authorization may be renewed in accordance with the relevant legal provisions. The Board of Directors can exercise this power for a period of five (5) years as from the date of publication in the Annexes to the Belgian State Gazette of the amendment to these Articles of Association approved by the shareholders' meeting on March 16, 2017 (i.e. April 26, 2017).

The Board of Directors is further authorized by Article 13 of the Articles of Association to acquire own shares in the Company, either directly, by a person acting in his/her own name on behalf of the Company or by a direct subsidiary within the meaning and the limits set out by Article 627, indent 1 of the Companies Code, under following conditions:

- This authorization applies for a number of own shares, profit-sharing certificates, or associated certificates that is at most equal to that which, after acquisition, results in a total number of own shares held by the Company equal to the set limit of 20% as stipulated in Article 5 of the SE Regulation juncto Articles 620 ff. of the Companies Code.
- Under this authorization a share should be acquired at a price that will respect the legal requirements, but that will in any case not be more than 10% below the lowest closing price in the last 30 trading days preceding the transaction and not more than 5% above the highest closing price in the last 30 trading days preceding the transaction.
- This authorization is valid for five years from March 16, 2017.

By resolution of the shareholders' meeting held on March 16, 2017 the Board of Directors is also authorized, subject to compliance with the provisions of the Companies Code, to acquire for the Company's account the Company's own shares, profit-sharing certificates, or associated certificates if such acquisition is necessary to avoid serious and imminent harm to the Company. Such authorization is valid for three years as from the date of publication of the authorization in the Annexes to the Belgian State Gazette (i.e. April 26, 2017).

By resolution of the shareholders' meeting held on March 16, 2017 the Board of Directors is authorized to divest itself of part of or all the Company's shares, profit-sharing certificates or associated certificates.

- This can be done at any time and at a price it determines, on or outside the stock market or in the framework of its remuneration policy to employees, directors, or consultants of the Company or to prevent any serious and imminent harm to the Company.
- The authorization covers the divestment of the Company's shares, profit-sharing certificates, or associated certificates by a direct subsidiary within the meaning of Article 627, indent 1 of the Companies Code.
- The authorization is valid without any time restriction, except when the divestment is to prevent any serious and imminent harm, in which case the authorization is valid for three years as from the date of publication of the authorization in the Annexes to the Belgian State Gazette (i.e. April 26, 2017).

Authorities of the Board to proceed with a capital increase

As per the Articles of Association, the Board of Directors is expressly empowered to proceed with a capital increase in any and all forms, including but not limited to a capital increase accompanied by the restriction or withdrawal of the preferential subscription rights, even after receipt by the Company of a notification by the Financial Services and Markets Authority (FSMA – "Autoriteit voor Financiële Diensten en Markten"/"Autorité des Services et Marchés Financiers") of a takeover bid for the Company's shares. Where this is the case, however, the capital increase must comply with the additional terms and conditions laid down in Article 5 of the SE Regulation juncto Article 607 of the Companies Code. The powers conferred on the Board of Directors remain in effect for a period of three years from the date of the amendment to the Articles of Association approved by shareholders' meeting held on 16 March 2017. These powers may be renewed for a further period of three years by resolution of the shareholders' meeting, deliberating and deciding in accordance with applicable rules. If the Board of Directors decides upon an increase of authorized capital pursuant to this authorization, this increase will be deducted from the remaining part of the authorized capital.

Other elements

The Company has not issued securities with special control rights.

No agreements have been concluded between the Company and its directors or employees providing for compensation if, as a result of a takeover bid, the directors should resign or are made redundant without valid reason or if the employment of the employees is terminated.

7.11 Auditor

KPMG Bedrijfsrevisoren BV CVBA, whose registered office is situated at 1930 Zaventem, Lucht-haven, Brussel Nationaal 1K, was appointed as statutory auditor of the Company. Mr. Herwig Carmans, auditor, was appointed as the permanent representative of the auditor.

The mandate of KPMG Bedrijfsrevisoren BV CVBA was renewed for three years at the annual shareholders' meeting held on March 16, 2017.

The consolidated annual fee for this mandate amounted to USD 345,000 in audit fees, VAT excluded. In 2018, the additional fees for other services amounted to USD 41,000, VAT excluded. Non-audit related services mainly relate to certification engagements and tax compliance services. Reference is made to note 7.7.

7.12 Compliance with the 2009 Belgian Code on Corporate Governance

X-FAB complies with the principles of the 2009 Belgian Code on Corporate Governance. In view of the "comply-or-explain" principle of the Code the following overview sets out the provision of the Code that X-FAB does not comply with, along with an explanation of the reasons for non-compliance:

- The level of shareholding for the submission of proposals to the shareholders' meeting is, in accordance with the rules applicable to a Societas Europaea such as the Company, set at 10% of the share capital, while provision 8.8 of the Corporate Governance Code recommends that this level should not exceed 5%.

8. SHAREHOLDER INFORMATION

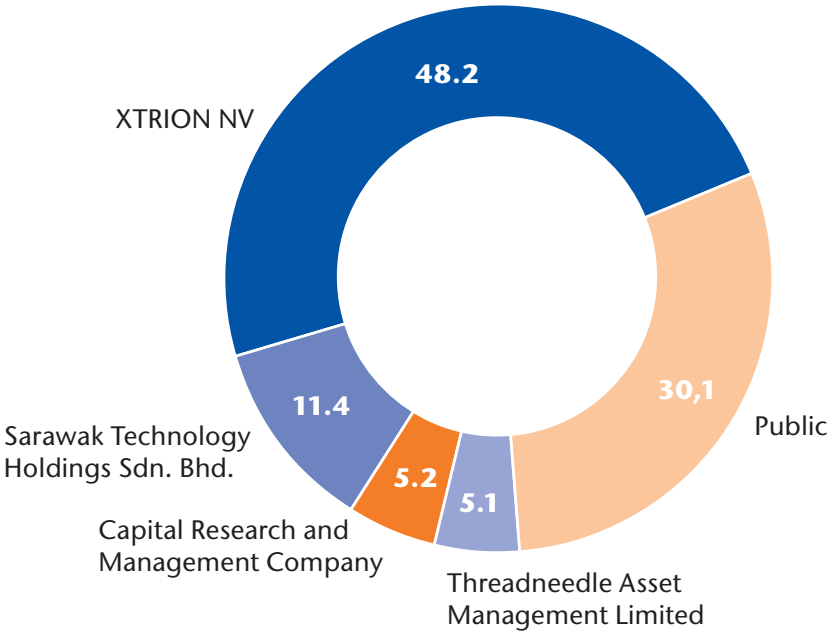
Shareholder structure

	Number of shares	Share in %
XTRION NV	63,043,079	48.2
Sarawak Technology Holdings Sdn. Bhd.	14,948,655	11.4
Capital Research and Management Company[1]	6,765,466	5.2
Threadneedle Asset Management Limited[2]	6,606,784	5.1
Public	39,417,685	30.1
TOTAL	**130,781,669**	**100.0**

[1] *Participation based on transparency notification received on December 8, 2018*

[2] *Participation based on transparency notification received on July 24, 2017*

Total number of votes: 130,781,669



Share information

First day of listing:	April 6, 2017
Stock exchange:	Euronext Paris
Ticker:	XFAB
ISIN:	BE0974310428
Number of shares outstanding on December 31, 2018:	130,781,669
Market capitalization on December 31, 2018:	EUR 557,129,909.94

Financial calendar

April 25, 2019
Annual shareholders' meeting 2019

April 30, 2019
Publication of Q1 2019 results

July 30, 2019
Publication of Q2 2019 results

October 29, 2019
Publication of Q3 2019 results

Contact information

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9. X-FAB SILICON FOUNDRIES SE STATUTORY ACCOUNTS

The separate financial statements of X-FAB Silicon Foundries SE, the Group's parent, have been audited in accordance with Belgian statutory requirements. The auditor's report is unqualified and certifies that the financial statements have been prepared in accordance with Belgian GAAP, and that they give a true and fair view of the financial position and results of X-FAB Silicon Foundries SE in accordance with all legal and regulatory requirements.

The separate financial statements, together with the separate management report of the board of directors to the general assembly of shareholders as well as the auditor's report thereon, will be filed with the National Bank of Belgium in accordance with the relevant statutory filing due dates. In addition, they are available on the Company's website or can also be obtained on request at the registered office of the company at Transportstraat 1, 3980 Tessenderlo.

The separate financial statements are reproduced below in condensed form.

The condensed statutory financial statements of X-FAB Silicon Foundries SE are presented in thousands of EUR as the functional currency of the statutory accounts is the EUR.

Participations in affiliated companies are recognized at their acquisition cost.

Condensed non-consolidated statement of profit and loss
For the year ended December 31

in thousands of EUR	2018	2017
Operating income		
Turnover	3,553	5,795
Operating charges		
Cost of services and other expenses	(3,586)	(11,798)
Wages and salaries, social security costs and pension costs	(106)	(8)
Operating profit (loss)	**(139)**	**(6,011)**
Finance income		
Income from current assets	64,905	9,971
Income from financial fixed assets	114	811
Other financial income	4,899	28
Finance costs		
Debt charges	(1)	(32)
Other financial charges	-	(1,040)
Net financial result	**69,917**	**9,738**
Profit before taxes	**69,778**	**3,727**
Income tax	(890)	-
Profit for the period	**68,888**	**3,727**

Condensed non-consolidated statement of financial position

in thousands of EUR	December 31, 2018	December 31, 2017
ASSETS		
Fixed assets		
Financial assets		
Affiliated companies		
Investments in affiliates	561,250	509,876
Loans issued to affiliated companies	122,585	109,053
Total fixed assets	**683,835**	**618,929**
Current assets		
Amounts receivable within one year		
Other receivables	50,225	27,679
Cash and cash equivalents	93,045	110,996
Total current assets	**143,270**	**138,675**
Total assets	**827,105**	**757,604**
EQUITY AND LIABILITIES		
Equity		
Capital		
Share capital - issued	657,457	657,457
Share premium	92,902	92,902
Reserves		
Legal reserves	3,766	322
Accumulated profits	71,377	5,933
Total equity	**825,502**	**756,614**
Current liabilities		
Amounts payable within one year		
Trade payables	1,111	141
Other current liabilities	-	754
Taxes	487	-
Accrued charges and deferred income	5	95
Total current liabilities	**1,603**	**990**
Total equity and liabilities	**827,105**	**757,604**

10. RISK FACTORS

An investment in shares involves risks and uncertainties. Prior to making a decision to invest into shares of X-FAB, the information provided in this annual report and, in particular, the risks and uncertainties described below should be read and considered carefully. The occurrence of any of these risks could adversely affect the Company's business, results of operations, and/or financial condition.

Risks relating to X-FAB's business and the semiconductor industry

Structural trends in the markets for the end-user products produced by X-FAB's customers, or material volatility in demand for these products, may limit X-FAB's ability to maintain or increase sales and profit levels.

A significant portion of X-FAB's revenues is derived from customers who use ICs manufactured by the Group as components for the production of a wide range of products including automotive, industrial, medical, and communications devices. If consumer demand for these products is volatile, or past and expected structural growth trends in these industries do not continue, it may lead to reduced demand for X-FAB's analog/mixed-signal ICs.

A global systemic economic or financial crisis, increased political uncertainty, or increased economic protectionism could negatively affect X-FAB.

X-FAB's business is subject to inherent and indirect risks arising from general and sector-specific economic conditions in the markets in which it operates. In recent years, several major systemic economic and financial crises and events leading to political uncertainty have negatively affected global business conditions, the semiconductor industry, and a variety of consumer and industrial markets. X-FAB's protection against downturns is limited, since a substantial majority of customer contracts do not contain minimum order requirements, and as a result any decline or slow GDP growth, whether caused by political uncertainty, changes in trade regulation, or broader economic conditions, which leads to reduced consumer and industrial spending, may adversely impact X-FAB's customers and result in lower demand for its analog/mixed-signal ICs.

A significant portion of X-FAB's revenue comes from a relatively limited number of customers, with its largest customer being a related party.

X-FAB's largest customer, Melexis, accounted for 37.8% of the Group's revenue in 2018, while the Group's top three customers accounted for 58% of revenue and its top five customers accounted for 65% of revenue during the year. None of X-FAB's customers are prohibited by contract from purchasing from other semiconductor suppliers. In the past, customers have switched to other semiconductor suppliers with little or no notice, or have notified the Group that they would source semiconductors for new end-user products from other semiconductor manufacturers. Changes in X-FAB's relationships with its top customers, the loss of one or more of these customers, or a change in the competitive position of any of these customers could have a material adverse impact on X-FAB. Further, Melexis is a related party, as it is controlled by X-FAB's largest shareholder, XTRION (which is beneficially owned by Roland Duchâtelet, Rudi De Winter, and Françoise Chombar, and the permanent representative of X-FAB's CEO, Rudi De Winter, is married to Melexis' CEO Françoise Chombar). Conditions of the commercial relations between X-FAB and Melexis are in line with those that would have been agreed upon between independent parties in comparable circumstances. The arm's length character of these conditions are analyzed, determined, and tested in accordance with the principles and best practices in this respect as detailed in the OECD's 2017 Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations. Notwithstanding due care taken in the Group's transfer pricing analyses, there

can be no assurance that the tax authorities or courts will not take a position contrary to the Group's position.

Due to X-FAB's relatively fixed-cost structure, its ability to grow profitability is dependent on its ability to maintain appropriate utilization levels.
The profitability of X-FAB's operations is closely tied to its level of utilization. X-FAB's ability to improve or maintain utilization levels depends, among other things, on the general economic environment, the success of its major customers, and its ability to offer the technologies and processes required for it to stay competitive. Failure to maintain or improve utilization levels could have a material adverse impact on X-FAB.

X-FAB faces difficulties in forecasting demand and may therefore be unable to match its production capacity to demand.
Difficulties in projecting future business levels make it more difficult to reach and to maintain optimal utilization levels and adequately predict capacity needs across X-FAB's operations. Because customers usually place orders on a short-term basis, X-FAB may face difficulties accurately predicting demand. Significant capacity problems or inability or delay in shifting production to another fab could harm X-FAB's relationships with its customers and lead to lost sales. Furthermore, small changes in sales at the OEMs may trigger inventory corrections throughout the supply chain. As it can take about ten months from placing an order at X-FAB to assembling the final product at the OEM, a small variation in sales combined with a negative or positive market segment growth could cause overreactions in the supply chain that amplify the effects on X-FAB's end, since X-FAB is at the end of the supply chain.

X-FAB may be unsuccessful in its attempts to increase its production capacity and capabilities.
As part of its strategy to expand capacity, X-FAB intends to expand capabilities and capacity at the Group's existing sites. Although X-FAB does not have any current targets for future acquisitions, the Group may acquire additional companies or production sites over the medium term. X-FAB may also seek to grow its production capacity through the development of new manufacturing sites. Failure to integrate any acquired company, fab, or technology successfully, or to achieve desired synergies, may inhibit X-FAB's future expansion.

X-FAB may not realize all the anticipated benefits from its acquisition of Altis' core business.
X-FAB acquired the Altis assets in 2016, including a fab located in Corbeil-Essonnes, France. The integration process includes a series of technology introductions, capacity enhancements, adoptions of Group-wide systems, and implementation of cost-efficiency measures. X-FAB may encounter delays or interruptions in this integration process, among others due to delays in customer qualifications in the fab or a need to make additional capital expenditures. Further, the Group may face risks meeting targeted returns in the event of a decline in operating levels since it has committed to keep at least 800 staff employed at the fab until 2021. There can be no assurance that this integration will be successful, that X-FAB will meet targeted synergies or financial returns at the new facility, or that X-FAB will be able to keep all existing customers to secure satisfactory fab utilization during the business transition.

X-FAB's expectations of an increase in market share by foundries might not occur.
A key component of X-FAB's strategy is its belief that the market for foundries will grow, due to increased outsourcing of analog/mixed-signal ICs by IDMs and increasing prevalence of fabless companies. Although this trend has been prevalent in the digital IC market, it may not develop to the same extent in the market for analog/mixed-signal ICs. If increasing market growth for foundries were to slow or reverse, it could have a material adverse impact on X-FAB.

X-FAB may face increasing competition.
Although X-FAB operates in a narrow market segment within the broader semiconductor manufacturing industry, the Group faces competition from other semiconductor producers, some of which have greater manufacturing, financial, research and development, and marketing resources than X-FAB does. In the long term, these competitors may win a higher portion of new customers than X-FAB, or win existing customers from X-FAB. If X-FAB cannot provide the same level of design and engineering support, capacity, or advanced capabilities as competitors, it may have a material adverse effect on X-FAB.

X-FAB may face competitive pricing pressures.
Competitors may have an impact on X-FAB's selling prices and demand for its services. Although X-FAB has not experienced significant pricing pressure in the past, there can be no assurance this will be the case in the future. Significant declines in average selling prices (ASPs) could have a material adverse effect on X-FAB.

X-FAB may face raw material price increases.
X-FAB manufactures analog/mixed-signal ICs, utilizing proprietary process technologies and third-party silicon wafers and other raw materials. Changes in the availability or prices of such wafers and raw materials can have an effect on the operating margin if the additional costs cannot be included in the prices for X-FAB's own customers.
In 2018, raw wafer costs accounted for 12% of total cost of sales. For most raw wafer types, X-FAB uses more than one supplier to secure availability of required volumes but also to remain flexible. However, having several suppliers per wafer type also means a greater effort to acquire the necessary qualifications for these suppliers.

X-FAB is subject to risks associated with currency fluctuations.
X-FAB records its financial results in US dollars but receives revenues and incurs costs in a variety of currencies, including euros and Malaysian ringgit. Changes in the exchange rate of the US dollar to the euro or Malaysian ringgit could result in translational losses in a given year, as compared to prior operating periods, or a mismatch between local currency expenses and US dollar revenues. X-FAB has engaged in exchange rate hedging transactions, but these only cover a portion of the Group's business and may not be effective in preventing exchange rate losses.

For price, credit, liquidity, and cash flow risks as well as the use of financial instruments, please refer to section 10 of the notes in chapter 5, X-FAB Consolidated Financial Statements.

X-FAB is also subject to the following risks:
- X-FAB depends on successful technological advances.
- X-FAB depends on successful materials, machinery, and component procurement for its manufacturing processes.
- X-FAB may be unable to recruit or retain the personnel required for its growth strategy.
- X-FAB may be affected by reductions in government subsidies and grants and could fail to comply with the conditions and obligations under such subsidy programs.
- Industry studies, forecasts, and growth rates relating to the semiconductor market as a whole may not be indicative of X-FAB's operations within the analog/mixed-signal semiconductor market.
- X-FAB's ability to compete successfully and achieve future growth will depend, in part, on its ability to protect its proprietary technology.
- X-FAB may be subject to claims for alleged infringement of third parties' intellectual property rights.

- X-FAB depends on intellectual property rights of third parties, and failure to maintain or acquire licenses could harm the Group's business.
- X-FAB could be adversely affected by manufacturing interruptions.
- If X-FAB experiences difficulty in achieving acceptable device yields or process performance as a result of manufacturing problems, it could result in delayed deliveries.
- X-FAB's insurance coverage may not be adequate to compensate for any interruptions or loss of business.
- X-FAB could incur material costs to comply with regulation, including environmental and health and safety laws, especially as a result of climate change. Changes in such regulations could require significant changes in the production process or could even require purchasing additional equipment.
- X-FAB may be subject to litigation, disputes, or other legal proceedings.
- X-FAB carries a significant amount of deferred tax assets on its balance sheet.
- Low or negligible employee motivation as well as the occurrence of accidents due to human failure may negatively impact X-FAB's business.
- Cultural differences may lead to misalignment among X-FAB sites, negatively impacting X-FAB's business.
- X-FAB may be subject to penalty payments if labor rights or environmental provisions are being violated.
- X-FAB's public image may be adversely affected based on the impact of its business on the environment.

Risks related to the shares

- The interests of X-FAB's principal shareholder may not necessarily be aligned with X-FAB's interests or the interests of the holders of the shares.
- Future sales of substantial amounts of X-FAB's ordinary shares, or the perception that such sales could occur, could adversely affect the market value of the shares.
- X-FAB may not be able to pay dividends.
- Investors with a reference currency other than euros will become subject to foreign exchange rate risk when investing in the shares.
- Any sale, purchase, or exchange of shares may become subject to the financial transaction tax.
- Certain provisions of the Belgian Companies Code and the Articles of Association may affect potential takeover attempts and may affect the market price of the shares.

Forward-looking information

This annual report may include forward-looking statements. Forward-looking statements are statements regarding or based upon management's current intentions, beliefs, or expectations relating to, among other things, X-FAB's future results of operations, financial condition, liquidity, prospects, growth, strategies, or developments in the industry in which it operates. By their nature, forward-looking statements are subject to risks, uncertainties, and assumptions that could cause actual results or future events to differ materially from those expressed or implied thereby. These risks, uncertainties, and assumptions could adversely affect the outcome and financial effects of the plans and events described herein.

Forward-looking statements contained in this annual report regarding trends or current activities should not be taken as a report that such trends or activities will continue in the future. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise, unless legally required. You should not place undue reliance on any such forward-looking statements, which speak only as of the date of this annual report.

The information contained in this annual report is subject to change without notice. No re-report or warranty, express or implied, is made as to the fairness, accuracy, reasonableness, or completeness of the information contained herein, and no reliance should be placed on it.

11. GLOSSARY

AMF	The French Financial Markets Authority (Autorité des Marchés Financiers)
Analog M/S	Analog mixed-signal
ASP	Average selling price
Belgian Companies Code	The Belgian Act of May 7, 1999 containing the Companies Code as amended from time to time
Belgian GAAP	Belgian generally accepted accounting principles, which refers to the financial reporting framework applicable in Belgium
CAGR	Compound annual growth rate
CMOS	Complementary metal-oxide-semiconductor
Company	X-FAB Silicon Foundries SE
CSR	Corporate social responsibility
DNA	Deoxyribonucleic acid
DRAM	Dynamic random-access memory
EBIT	Earnings before net finance cost and income taxes, which is equivalent to operating profit, as presented in the historical financial information
EBITDA	Earnings before net finance cost, income taxes, depreciation, and amortization.
EDA	Electronic design automation
EEA	European Economic Area
EEPROM	Electronically Erasable Programmable Read-only Memory
EHS	Environmental, Health and Safety
Epi	Epitaxy, which is the process of depositing a thin layer of single crystal material over a single crystal substrate
ERP	Enterprise resource planning
ESD	Electrostatic discharge
EU	The European Union

EUR, euros, or €	The common currency of the EU member states that are part of the Eurozone
EV	Electric vehicle
Fab	Wafer fabrication facility
FSMA	The Belgian Financial Services and Market Authority
GaN	Gallium nitride
GDP	Gross domestic product
GRI	Global Reporting Initiative
GVG	X-FAB Dresden Grundstücks-Vermietungsgesellschaft mbH & Co. KG
IATF	International Automotive Task Force
IC	Integrated circuit
ICC	International Chamber of Commerce
IDM	Integrated device manufacturer
IFRS	International Financial Reporting Standards as adopted by the European Union
IGBT	Insulated Gate Bipolar Transistor
IoT	Internet of things
IP	Intellectual property
kW	kilowatt
LED	Light Emitting Diode
MAR	Regulation (EU) No 596/2014 of the European Parliament and of the Council of April 16, 2014 on Market Abuse
MEMS	Micro-electro-mechanical systems
MFI	X-FAB MEMS Foundry Itzehoe GmbH
M-MOS	M-MOS Semiconductor Sdn. Bhd.
MW	Megawatt

NRE	Nonrecurring engineering
NVM	Nonvolatile memory
OECD	Organization for Economic Cooperation and Development
OEM	Original equipment manufacturer
PDK	Process design kit
REACH	Registration, Evaluation, Authorization, and Restriction of Chemicals
RF	Radio frequency
RoHS	Restriction of the use of certain hazardous substances
SE Regulation	Council Regulation (EC) No 2157/2001 of October 8, 2001 on the Statute for a European company (SE)
SiC	Silicon carbide
SME	Small or medium-sized enterprise
SOC	System-on-chip
SOI	Silicon-on-insulator
STEM	Science, technology, engineering, and mathematics
TOC	Total organic carbon
TSV	Through-silicon-via
UNIMAS	University of Malaysia Sarawak
VOC	Volatile organic compound
WLP	Wafer level packaging
WSPM	Wafer starts per month
X-FAB SE, or the Company	X-FAB Silicon Foundries SE
X-FAB SE Group, or the Group	X-FAB Silicon Foundries SE together with its subsidiaries
X-FAB GmbH	X-FAB Semiconductor Foundries GmbH

X-FAB GmbH Group	X-FAB Semiconductor Foundries GmbH together with its subsidiaries
X-FAB Dresden	X-FAB Dresden GmbH & Co. KG and X-FAB Dresden Verwaltungs-GmbH
X-FAB France	X-FAB France SAS
X-FAB TX	X-FAB Texas Inc.
X-FAB Sarawak	X-FAB Sarawak Sdn. Bhd.
X-FAB Japan	X-FAB Japan K.K.
XMF	X-FAB MEMS Foundry GmbH

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